Green Thumb News



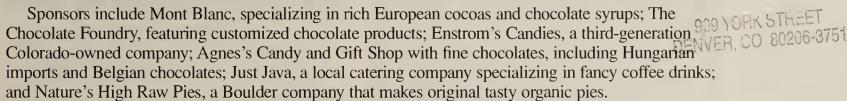
Denver Botanic Gardens

January 1998

'Incredible Edibles' return this month

Tease your tastebuds with "The Incredible Edibles," a series of programs where you can discover tasty treats and exotic plants. Its 1998 debut is Jan. 31 and Feb. 1, with "Chocolate, Bread and Coffee."

Discover how chocolate is processed into candies, how grains make our favorite breads and where coffee beans comes from. Learn about different types of chocolates, breads and coffees and the plants that produce their key ingredients. Free samples, sales booths, children's activities, educational exhibits and talks by experts will provide you with all you need to know about chocolate — just in time for VEREO Valentine's Day. Once you've had enough sweets, you can sample and learn about breads and coffees, as well. This program combines three of last year's most popular events into one tantalizing weekend EC



Future Incredible Edible programs are "Luscious Legumes" March 7 and 8, a look at peas and beans; and "Spring Fling" April 4 and 5, where you can learn about the flowers and foods in the sunflower family. Each weekend features a unique make-it and take-it activity for children of all ages.

All programs are in John C. Mitchell II Hall from 9 a.m. to 5 p.m. and are included with general gate admission (free to DBG members). For more information call 370-8041.

Discover color in your garden

Denver Botanic Gardens and *Horticulture* magazine bring the nation's top gardening experts to Denver for "The Art of Color: Gardening with the Full Spectrum" Tuesday, Feb. 3. DBG offers a complementary program, "Color Basics: The Details to Coloring your Garden," Wednesday, Feb. 4. Both programs are from 9 a.m. to 4 p.m. in John C. Mitchell II Hall.

Impressionistic masterpiece or garish jumble — of all the design elements available to gardeners, color is the most powerful but the most difficult to manage. Tuesday's symposium explores how to combine color with light and shadow, architecture and plants in ways that stretch the imagination.

California-based landscape architect, horticulturist and nurseryman Gary Ratway begins the day explaining how he builds an interface between architecture and plantings by framing color. Next, Fergus Garrett, head gardener for Christopher Lloyd at Great Dixter in England, demonstrates how to bring tropical appearing plants into a temperate garden, taking a revolutionary approach to color.

Rob Proctor, gardening columnist, author, gardener and botanical illustrator, explores classic garden harmonies and tests the limits with cutting edge color combinations. Botanical illustrator, author and gardener Angela Overy explains how foliage can set the tone for your garden by adding interest with leaves, stems, bark and berries. Finally, designer Tom Peace, who gardens in Texas and Colorado, shows ways to create color highlights and subtle accents with an eclectic range of plants and containers.

You've heard all the pros talk about color, but how do you translate what you've learned into your own colorful garden? In Wednesday's workshop, learn how to work with color and plants best suited to the Front Range growing conditions. Local landscape designer Jocelyn Chilvers discusses elementary color and design principles and how they apply to gardening design. David Salman, owner of Santa Fe Greenhouse and High County Gardens, talks about unique plants to the Front Range area.

Spend the remainder of the day in small work-groups discussing individual garden needs. In addition to Chilvers and Salman, other team leaders are plant experts Eleanor Welshon, Kelly Grummons, Harriett McMillan, Marcia Tatroe and Susan Yetter. You'll have your choice of two specific topics to discuss, including the pastel garden; hot garden colors; coloring with foliage; and a monochromatic garden of silver, gray or white. Bring pictures of your own garden or of gardens in which you are interested, plus a scale sketch of your yard.

Cost for both days of lectures is \$144 for DBG members, \$154 for *Horticulture* magazine subscribers and \$164 for nonmembers. Cost for Tuesday's program only is \$95 for DBG members, \$99 for *Horticulture* magazine subscribers and \$109 for nonmembers. Cost for Wednesday's program only is \$64 for DBG members and \$78 for nonmembers. For more information or to register, call 370-8020.

Green Thumb News January 1998

Published monthly by Denver Botanic Gardens' Marketing and Special Events Dept., 909 York St., Denver, CO 80206 edited by Wendy Tucciarone horticulture editor Ken Slump Deadline for Mar. issue: Jan. 16

Getting in touch with DBG

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General information	331-4000
TDD	370-8032
Dr. Green plant information	370-8068
Tues. and Thurs., 1 to 3 p.m.	
Gift Shop	331-4009
9:30 â.m 4:30 p.m.	
Helen Fowler Library	370-8014

Sun. through Sat., 9 a.m. to 5 p.m. Closed major holidays.

Offices

Mon. through Fri., 8 a.m. to 5 p.m.

Class registration	370-8020
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Media relations	370-8033
Membership services	370-8029
Plant society meetings	370-8097
Security, emergencies	370-8017
Special events information	370-8187
Tribute gifts	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

From the executive director

Gardening and the exuberance of Spring growth may seem a long way ahead, but not at the Gardens. We have so many things packed into the winter season to brighten your gardening spirits.

Our annual Botanical Illustration Show begins on Feb. 7 and runs through Feb. 22. Just in its second year, this already has become an important show featuring works by artists from around the country. We also have a great line up of Spring speakers in our annual Bonfils-Stanton lecture series, and our winter courses are sure to include topics to inspire you to new gardening heights!

Don't forget to visit the Gardens. Many of our gardens look beautiful in the Colorado winter light, but the best of them at this time of year is always the *Shofu-en*, our magnificent Japanese Garden. This masterpiece garden is truly at its best after a snowfall, when it shows the magnificent forms of the character pines, the sparkling of light on the half frozen pond and its overall intimacy and serenity.

And our Helen Fowler Library — what better time is there to come browse the hundreds of gardening periodicals, leaf through the seed catalogs or check out some books to help prepare you for your next gardening adventure?

Our volunteer work goes on year 'round, so if you have some extra time, please call the volunteer office. So much of what goes on at the Gardens depends on volunteers, and we always would welcome your help.

In the throes of winter, remember, some of the best parts of the Gardens await you.

Richard H. Daley Executive Director

Land trust elects Daley

DBG's executive director Richard H. Daley recently was named to the board of directors of the Trust for Public Land, a national nonprofit land conservation group.

The San Francisco-based trust protects lands for people to enjoy as parks, gardens and wilderness areas. It has acquired nearly 1 million acres nationally. It is very active in the west, with numerous projects ongoing in Colorado and New Mexico. Daley's term is for one year.

"The Trust for Public Land takes an innovative approach to land conservation that I am excited to be a part of," said Daley. "The work of the Trust is a wonderful complement to the Gardens' work in plant conservation and our mission of moving toward a sustainable environment for everyone."

Daley re-elected to CPC

The Center for Plant Conservation recently re-elected DBG's executive director Richard H. Daley for a two-year term and appointed him to its executive committee.

DBG was one of the original 18 botanic gardens and arboretums that formed the CPC many years ago. It now has expanded to include 28 gardens and arboretums throughout the country. With help from public and private conservation groups, the CPC builds a living "national collection" of endangered plants to preserve them outside their threatened native habitats. Denver Botanic Gardens' region of CPC includes the central Rocky Mountain region, from northern New Mexico to Canada, from Utah to the Front Range.

"The Center for Plant Conservation is recognized around the world as one of the best examples of a unified effort in one country to protect endangered plant species," said Daley. "The Center's collection of nearly 500 species — a quarter of the plants identified as rare, threatened or endangered in the U.S. — is a measure of its success. Through the center we are developing a 'genetic safety net' of the rarest plants of the U.S."



IMPROVEMENT PROJECTS UPDATE

Six cement light structures that previously lit the tropical conservatory have been successfully moved to the south end of the parking lot. This winter they will be permanently positioned in the lot, providing additional illumination and design features. Between snow storms, construction also has continued in the Romantic Gardens area, and preliminary work has begun in the conservatory.



Recycle your Xmas tree

Denver Recycle's annual "Treecycle" program will recycle thousands of Christmas trees into mulch again this holiday season. Treecycle helps Denver avoid using landfill space and paying disposal fees for valuable, recyclable resources — Christmas trees.

All Denver residents whose trash is collected by Denver Public Works/Solid Waste Management can put their trees out to be collected through Jan. 9. Trees should be removed of all decorations, tinsel, nails, stands and plastic bags and set out by 7 a.m. for collection on your trash day. The trees will be ground into mulch, which will be distributed free to Denver residents in the spring at the Treecycle Mulch Giveaway. For more details, call 640-1678.

Perennial expert to speak at Gardens

Internationally respected plantsman Adrian Bloom will present "The World of Perennials According to Bloom" Wednesday, Jan. 28, at 7 p.m. in John C. Mitchell II Hall. The program is co-sponsored by the Colorado Greenhouse Growers Association, the Garden Centers of Colorado and Denver Botanic Gardens.

Bloom will discuss perennials in different countries around the world, trends in perennials, popular styles of gardening and how they relate to American gardening.

As president of Blooms of Bressingham Nursery in Norfolk, England, Bloom has personally introduced many American gardeners to the unique varieties of perennials for which he and his father are internationally known. The Blooms nursery, one of Great Britain's largest, was founded by Alan Bloom in 1926. In early 1995 the company began offering its perennials in this country and in Denver at Welby Gardens, Country Fair, Tagawa Greenhouses, Gulley Greenhouse, Wilmore Garden Center and City Floral.

Along with his father, Bloom is the holder of the Royal Horticultural Society's coveted Victoria Medal of Honor for service to horticulture. As a writer, Bloom co-authored the widely acclaimed *Blooms of Bressingham Garden Plants* with his father. The book describes more than 5,000 species and cultivars of hardy garden plants. More recently, he wrote *Winter Garden Glory* and *Summer Garden Glory*. Bloom will be autographing his books, available in DBG's Gift Shop, after his presentation.

Tickets purchased in advance cost \$15. Tickets also will be sold at the door if seating is available for \$20. Registration for this program is through the Colorado Greenhouse Growers Association, 427-8132.

Help DBG win lottery

The Colorado Lottery will hold its "Everybody Wins" charity drawing next month, and with your help, Denver Botanic Gardens could be a winner.

Collect all your non-winning Colorado Lottery Scratch game tickets, write your name, phone number and the name of your favorite nonprofit group on the back, then drop the tickets in Lottery drop boxes at participating Albertsons, King Soopers, Safeways, Cub Foods or City Markets across Colorado through Jan. 18.

On Feb. 14, the Lottery will randomly select six tickets, and the nonprofit group listed on the back can win up to \$10,000. The person who entered the ticket can win up to \$1,000. For more information call the Colorado Lottery, 759-3552.

Learn to grow violets

The Ultra Violet African Violet Club will sponsor a program called "Growing for Fun, to Show or Sell" at DBG's Morrison Horticultural Demonstration Center across the street from the York Street entrance gate Monday, Jan. 26, at 9:30 a.m. Basic African violet care and culture will be discussed. The talk is free of charge and open to the public, and anyone who joins the club at the talk will receive a free African violet. A meeting and refreshments will follow. For information call 429-2730 or 697-5905.

DBG sets '98 free days

DBG's York Street gardens and Chatfield Arboretum will offer plenty of free days to Colorado residents this year, thanks in part to the Scientific and Cultural Facilities District.

York Street free days will be Mondays, Jan. 19, April 6, May 4, June 1, July 6, Aug. 3, Sept. 7, Oct. 5 and Saturday and Sunday, Nov. 7 and 8. The Arboretum's free days will be the first Friday of every month, and visitors can participate in a free drop-in tour of the Arboretum during each free day. For information on York Street free days call 370-8187. For information on the Arboretum's free days or drop-in tours, call 973-3705.

A 'Blossoms' encore

This year's 'Blossoms of Light' display will be held over for Stock Show festivities Jan. 11 through 25. At this encore performance of DBG's popular winter festival, the outdoor grounds will be lighted from 6 to 9 p.m. each night. (Please note that there will be no entertainment, refreshments or children's activities.) Admission is \$4 for adults, \$2 for children, \$2 for adult members and \$1 for child and senior members. Bring your out-of-town stock show visitors, or return again to enjoy this spectacular holiday sight.

Employee of the month

Jim Henrich, director of horticulture, was voted by his co-workers as November's employee of the month. Jim's commitment to the Gardens and willingness to go beyond the call of duty shows in the countless hours he has spent collaboratively working to promote and bring on-line Plant Select® and PlantTalk Colorado™, developing the Mt. Goliath project, working with the Arboretum staff on the Chatfield Green Development, dealing with construction issues and conducting impromptu garden tours when asked. Congratulations, Jim!

Data collected on Mt. Goliath

Partners for Plants, a Garden Club of America program, is designed to focus on endangered plant species on Federal lands while simultaneously encouraging coordinated efforts by Federal land agencies and community volunteers to work together on conservation projects. In June 1997, the Garden Club of Denver received \$2,000 from the Garden Club of America for a conservation project on Mt. Goliath. The money was used to hire a summer intern to update the botanical plant list for Mt. Goliath, located in the Arapaho National Forest.

Brady Wilson, a field biology major from the University of Northern Colorado, was hired to assist Carol Dawson and Mark Minton with the project. A second intern, Paula Ellison from the University of Denver, also partcipated in the study. The long-term goal for the Mt. Goliath project is to monitor trends in vascular plant species richness at this site.

Five 500-square-meter plots were established along the Mt. Goliath trail covering alpine, forest and ecotone. These plots have been permanently marked for long-term monitoring. All the vascular plant species present in the plots have been recorded. Forty-five additional plant records were added to the existing botanical inventory, but no federally listed endangered or threatened species or U.S. Forest Service sensitive species were documented along the Mt. Goliath trail. During data collection, soil samples also were collected for analysis. Ellison will process the soil samples and use the data in her honors thesis in ecology at D.U. Working with Dr. Rick Boyce, she will use fuzzy ordination, a mathematical technique, to examine the relationship between the species and site factors such as slope and elevation.

DBG's research department would like to thank several individuals who helped with data collection, including Dr. Jan Wingate, Velma Richards, Lainie Jackson and Herman Motz.



One of the fun and interesting jobs of preparing for planting the renovated tropical conservatory is finding unique, interesting and ornamental plants. DBG is fortunate to be working with a local nursery whose excellent manager and outstanding plant buyer are helping us find the unusual plants we are seeking.

In Florida we have been able to find many nurseries and collector/hobbyists who have supplied us with an incredible array of tropical plants, including orchids, bromeliads, palms, aroids, ferns and various shrubs and trees. We also have been working with several other botanic gardens that are willing to share plants from their collections. Some of the plants we have secured are very rare in nature, as well as cultivation. Each month for the next year watch for a feature article in the Green Thumb News on a plant that will be in the renovated conservatory.

Coccoloba pubescens (syn. C. grandifolia), a native of Tropical America, is a sparinglybranched tree up to 80 feet high, with woody stems and giant round, leathery leaves up to three feet across. The leaves are conspicuously veined and have rusty hairs on the undersides. The plant has green flowers on an erect flower structure which is about two feet long.

> Gary Davis Greenhouse Supervisor



on DBG's Dr. Green plant information help line. Q. I received an amaryllis bulb as a gift. How

Answers from Dr. Green

Here is a sample of the many questions received

should I care for it?

A. Forcing the dramatic flowers of amaryllis (Hippeastrum hybrids) into bloom is a sure-fire cure for almost any gardener's "winter blahs." Most of the amaryllis in cultivation are hybrids of species from the Peruvian Andes. To use the term "force" on this impressive plant is an exaggeration, as it is quite easily cultivated. If your bulb has not been pre-planted, choose a pot that's not much larger than the bulb and plant it in a loose potting mix with its "neck and shoulders" above soil level. Water thoroughly and re-water when the soil begins to dry out. In the home, amaryllis need at least a half day of bright or direct light to thrive. With most types, the flower stem emerges first, producing several large blossoms at the top of an 18- to 24-inch stem. The plant's strap-like foliage usually emerges at or soon after flowering. When the flowers fade, cut the stem off just above the top of the bulb. If you want to save the bulb to flower another year, keep the plant in bright light, water regularly and fertilize monthly. When summer comes, you may maintain the plant in a sunny indoor location or move it to a partially shaded spot outside. In September, bring the plant indoors and discontinue watering to induce bulb dormancy. Remove its dried, yellow leaves as they fade, then store the leafless bulb in a dark, cool place for a rest period of one to three months. Repot the bulb in fresh soil to begin the process anew.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message anytime for a return call, 370-8068.



Coccoloba pubescens drawn by Jayme S. Irvin.

In the forests of Puerto Rico on the sides of moist mountains 70-foot trees with huge heart-shaped leaves grow slightly buttressed when mature. The trees are called *Coccoloba pubescens* (syn. *C. grandifolia*). As young trees the sprouts are very erect and unbranched. When older, they have a spreading crown with just a few branches, and those branches are sparsely leaved. The plants are dioecious (male and female flowers on different plants.) The flowers are about 2 feet long and green. The fruit ripens to a dark grape color. The bark of the tree is gray and smooth. The inner bark is light brown. The twigs of the tree have raised dots on them and are green with tiny hairs when young. Even the buds are hairy. Common names of this tree — moralón, grand-leaf sea grape and leather-coat-tree — all are descriptive of its appearance.

The sapwood of the tree is white, the heartwood reddish brown with dark pores. The wood is very hard, and in Puerto Rico it is highly-prized and used for furniture and other construction. It resists termite attacks.

The tree is used as an ornamental plant in Florida and Cuba. Its best benefit as an ornamental tree is that it is slow growing and has beautiful, large leaves, flowers and dark fruit.

Along with Puerto Rico, the tree is also native to Hispaniola, Barbuda, Antigua, Montserrat, Nevis, Guadeloupe, Dominica, Martinique, St. Lucia and Barbados. On your next trip to the Caribbean visit the island mountains and look for this mid-size tree of the rain forest, or stop by Helen K. Fowler Library and check out these resources:

Howard, Richard A. Flora of the Lesser Antilles: Leeward and Windward Islands. Jamaica Plain, Mass.: Arnold Arboretum, Harvard University, 1988. QK 231 .A5 H5 1988.

Little, Elbert L., Jr. & Frank H. Wadsworth. *Common trees of Puerto Rico and the Virgin Islands*. Washington, D.C.: U.S. Department of Agriculture, 1964. QK 230 L58 1964-1974.

DBG learns from hail damage

A local paper used to remind us that "Tis a privilege to live in Colorado," but gardeners know that we pay for that privilege from time to time. On Aug. 11, 1997 Denver Botanic Gardens paid a high price indeed: at the very peak of color throughout the outside grounds the heavens opened up and pelted the plantings for more than a half hour with an 8-inch accumulation of pea- to marble-sized hail. As luck would have it, this took place on the eve of the International Water Lily Society Symposium: hundreds of professional and amateur water gardeners from the far corners of the world had come to Denver — many enticed by the prospect of seeing our world-class water garden collection. Fortunately, many had already visited, and there were many wonderful, undamaged displays of water plants elsewhere in the city.

Neighborhoods in a wide band through the city were hit as hard, or even harder by this event. Since hail occurs perennially somewhere in the metro area, we "The Gardening Staff" took notes during the weeks following on plants that were most severely affected, and which ones bounced back the fastest.

Many of us have sought counsel from Shane Smith, director of the Cheyenne Botanic Gardens a mere hundred miles to the north of us. Cheyenne has the dubious distinction of being the official Hail Capital of America — with an average of a dozen hail storms every growing season. "This year we lucked out," said Smith. "We only had eight hailstorms at the Botanic Gardens." A trip to that garden is well worth the drive: for one thing, you will see plantings planned with hail very much in mind. "Plants with finer textured foliage always come through the best," said Smith. "The first thing we do is cut back as much of the damaged foliage as we dare, and we feed the plants lightly on a balanced fertilizer. Not only are the plants damaged, but the soil is often compacted, so cultivating lightly pays dividends. We avoid larger leafed plants — hostas and rhubarbs: they're coleslaw waiting to happen."

Following are observations by DBG staff after our devastating storm. The horticulturists were struck by how little damage there seemed to be on native plants found in the plains garden, Gates Montane Garden and even the xeriscape demonstration garden — all bounced back in a few days, looking hardly the worse for wear. Bert Rhodes, horticulturist in the Japanese Garden, was amazed at how well the plants in his garden responded to such a severe test — testament to that ancient school of gardening and perhaps plant selection in this garden. Once the tattered leaves had been trimmed, the water lilies and aquatics sprang back with astonishing vigor, and by Labor Day the water gardens looked every bit as glorious as they had just before the hail. No garden is hailproof, but many plants are obviously resilient. Watch for a list of these hardy kinds in a future issue of *Green Thumb News*.



'Starburst'ice plant

Plant Select® profile

'Starburst' ice plant (Delosperma floribundum 'Starburst') was chosen by DBG and C.S.U. as one of six Plant Select® choices for 1998 — plants of superior garden merit for the Rocky Mountain Region.

By now, practically everyone knows the yellow and purple ice plants that were launched on the national horticultural scene by our regional displays and nurseries. The success of these initial introductions has led to the screening of hundreds of potentially hardy ice plants — the first has figuratively burst into gardens in just the last few years. Superficially reminiscent of Delosperma cooperi, this species forms a much more compact mound of shimmering, soft pink with conspicuous white eyes. It shows similar hardiness and garden performance to the already well-known ice plants. You will want to add this one to your border or xeriscape.

'Starburst' ice plant will be available for purchase at DBG's annual Plant and Book Sale May 8 and 9, and at garden centers and nurseries next spring.

Take a photo journey

Join renowned nature photographer John Fielder as he takes you "Along Colorado's Continental Divide Trail" Thursday, Jan. 22, at 7 p.m. in John C. Mitchell II Hall.

The multi-media slide and music presentation features Fielder's stories about life on a 740-mile portion of the Continental Divide Trail. This section of the trail is considered by many to be the most dramatic part of the entire 3,100 miles of America's Continental Divide National Scenic Trail from Mexico to Canada, and much of the time it is above 12,000 feet in elevation.

The program captures the dramatic beauty of Colorado's alpine tundra. The nearly completed trail invites an unparalleled trek through the nation's spectacular scenery and highest vantage points, affording the most breathtaking panoramas anywhere in the world. The Continental Divide bisects the nation — all rivers originating west of the Divide flow into the Pacific Ocean, while rivers starting on the east empty into the Atlantic Ocean or the Gulf of Mexico.

This stunning slide program is based upon Fielder's newest book, *Along Colorado's Continental Divide Trail*, a collaborative effort with outspoken outdoor writer John Fayhee. The book, the first in a series of official trail guidebooks from Westcliffe Publishers, features 43 full color maps, elevation gain and loss charts and detailed information about trailhead access, resupply centers, compass GPS coordinates and how to plan your journey.

Fielder has been photographing the natural world since 1973 and has produced 26 books on nature photography. He was the 1993 recipient of the Sierra Club's Ansel Adams Award of Conservation Photography, which honors those individuals who have made superlative use of still photography to promote conservation causes.

Tickets are \$6 for members and \$7 for non-members. Tickets will be available the evening of the lecture, and Fielder's book, *Along Colorado's Continental Divide Trail*, will be available in the Gift Shop. To register, call 370-8020.

Become a volunteer

Explore the possibilities of volunteering, including leading tours, at an open house in DBG's John C. Mitchell II Hall Tuesday, Jan. 13, from 3 to 7 p.m. Light refreshments will be served.

The open house is an opportunity to have your questions answered by staff and volunteers, including experienced guides, and learn about DBG's various volunteer opportunities, including the tour guide programs. Guides are needed for all tour programs — theme, naturalist, Mt. Goliath, sensory, sprouts, garden highlights, outdoor and drop-in tour guide programs. The open house is free, but preregistration is requested, 370-8020.



John Fielder

Thanks for the gifts

A hearty thank-you goes to all those who sent a gift to support DBG's Annual Fund. Your gift will benefit a variety of programs and enable hundreds of thousands of people to enjoy the Gardens and learn about the crucial role of plants in our lives. The Gardens depends on friends like you to keep it growing! You may send a completely tax-deductible gift to support the Annual Fund any time, or receive information on our planned giving program by calling 370-8027.

Youth education program expanding

The education department is hard at work upgrading and expanding its youth education program to focus on science literacy and inquiry-based learning, and to serve a diverse student community. Gail Shands, youth education manager, and Cherie Wilson, curriculum specialist, will be collaborating to develop a range of school- and community-based programs for youth in grades pre-K through 12, and to provide teacher enhancement opportunities in the sciences.

The "theme tour" program on the healing power of plants that was piloted this fall was a huge success, with more than 400 students participating. A similar program for grades third through sixth will be offered in March and April, focusing on conifers. A "Sprouts" program for grades pre-K through second currently is being developed and will be offered from May through September. DBG also will have discovery backpacks available this spring that contain interpretative materials, maps and activities for classes and families wanting to enhance their visit.

Of special note, DBG, in cooperation with the Colorado School of Mines, will be offering an Environmental Sciences Certificate Program this summer, for educators and interpreters who would like to enhance their knowledge of and skills in environmental sciences education.

Look for the DBG winter educational programs catalog for a list of the many new and exciting programs and volunteer opportunities for you and your children.

Tributes

In memory of Frank L. Burns

Mr. and Mrs. Charles Gates

In memory of Ms. Helen M. Clifford

Ms. Gainor W. Dobson

Mr. and Mrs. Loretto Mullane

In memory of Mary Cool

Jennifer Darling

Syd Glick

Genevieve Gonzales

Tiffany Jones

Benny Juarez

Anita Livingston

Rosalyn Zigmond

In memory of Ms. Frances Doyle Rice

Bruce and Pat Paton

In memory Martin Ernsteen

Mrs. June Wurtsmith

In memory of Dasie Flor

Associates of Denver Botanic Gardens

In memory of Ms. Margaret Goldsmith Burk

Mrs. Harriett L. Rydstrom

In memory of Mr. Bill Gossard

Mr. and Mrs. Richard A. Kirk

In memory of Elizabeth Jenkins

Elizabeth and Jeffrey Vosler

In memory of Marian Mille

James Elliott

In memory of Ms. Julia Schnekenburger

Mrs. Jo Estill

In memory of Frances Stubbs Shippen

Mr. Billie Dismer Jackson

Ms. Mary Anne Dismer Proctor

Ms. Betsy Dismer Yancy

In memory of Ms. Betsy B. Wangelin

Mr. and Mrs. Scot Butler

In memory of Janet Wierman

Syd Glick

In tribute to Mrs. Anne Freyer Sweeney

Mr. and Mrs. David Freyer

Mr. and Mrs. John E. Freyer

Mr. and Mrs. Frank B. Freyer III

Ms. Cory Freyer

Mr. and Mrs. Philip R. Harrill

Mr. and Mrs. William Schneider

Mr. Tom Taplin

Happy 75th birthdays to Mr. and Mrs. John McDonald

Ms. Margaret Guest

Birthdays...Anniversaries...Memorials...

You can make a contribution to the Gardens in memory or in honor of someone you love. It's a thoughtful tribute and a helpful gift to our institution. Please call (303) 370-8055 for more information.

Visit Indonesia

Don't miss DBG's "Indonesian Odyssey" slide presentation Thursday, Jan. 29, from 7 to 9 p.m. in John C. Mitchell II Hall.

Bali, Java, Borneo and Komodo — just their names evoke a feeling of mystery and adventure. These islands, located in Southeast Asia, are part of the 17,000 island nations of Indonesia, which stretch from Singapore to Australia. They have an incredible diversity of habitat as well as unique cultures. During the slide show you'll see pristine rainforests, vast swamps, dense jungles, steaming volcanoes and colorful coral reefs.

If you leave the presentation intrigued by this beautiful part of the world, consider signing up for DBG's "Indonesian Odyssey" trip Sept. 11 to 27. Information will be available the night of the slide show. Admission is free to members and nonmembers. For information call 370-8051.

From your membership office

A behind-the-scenes tour

New members are invited to a continental breakfast and tour of DBG's production gree-house areas on Saturday, Jan. 24. DBG's green-house staff and volunteers will be on-hand to guide tours and answer questions.

The breakfast will be served in John C. Mitchell II Hall, and tour groups will leave at 9 or 10 a.m. Reservations are required and space is limited. Please call 370-8018 to R.S.V.P. and to specify which time you perfer to tour the greenhouses.

DBG at Garden & Home Show

Be sure to visit the PlantTalk Colorado[™] booth at the Colorado Garden and Home Show at the Colorado Convention Center Feb. 14 through 22. DBG members had the first opportunity to try PlantTalk Colorado[™], a joint program between DBG, C.S.U. and the Green Industries of Colorado, after it was announced in the October *Green Thumb News*. The service lets you use your telephone to access all sorts of Colorado gardening information 24 hours a day. Learn how to grow many kinds of plants, where to find them, solutions to plant problems and much more. Pick up an updated listing of subjects at the PlantTalk Colorado[™] booth, and try out this new service soon.

A blossoming thanks

A big thank-you goes to the corporate sponsors of the 1997 "Blossoms of Light." Thanks to the support of Public Service Company of Colorado, Secure Horizons Offered by Pacificare, Foley's, Robinson Dairy Inc. and KMGH-TV, DBG was able to offer thousands of visitors the opportunity to see our winter wonderland in December. If you didn't get a chance to visit in December or want to experience the dazzling display again, the outdoor lights of "Blossoms of Light" will be on to brighten your spirits Jan. 11 to 25.

Changes in membership tax deductions

Members, please note: the Fair Market Value (FMV) for 1997 upper-level memberships has been recalculated. The FMV for the three lowest membership levels remains unchanged.

To determine your tax deductible amount, subtract the 1997 FMV from the total amount you paid for your membership in 1997:

Membership level	Fair Market Value	Deductible Amount (if you paid the full amount)
Gardener (\$25)	\$8	\$17
Landscaper (S35)	\$8	\$27
Arbor Circle (\$50)	\$8	\$42
Botanist Club (\$120)	\$72	\$48
Conservator's Society (\$2	240) \$136	\$104
Perennial Partners (\$500)	\$246	\$254

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1998 Bolanical Illustration Show Artists and Numbers Preview Reception

Please join us for the opening reception of the second annual Botanical Illustration Show

Friday, Feb. 6 6 to 7:30 p.m.

John C. Mitchell II Hall 1005 York St.

Reservations are required and limited. Please call 370-8018.

HE'EN FOWLER LIBRARY DELVIER BOTANIC GARDENS

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Denver Botanic Gardens

909 York Street Denver, Colorado 80206-3799

Address service requested

January

- 1 York St. Gardens closed (open for "Blossoms" 6-9 p.m.)
- 2 Free Day & Drop-in Tour at Chatfield Arboretum
- 4 Blossoms of Light final evening
- 11-25 Blossoms of Light outdoor lights only from 6 to 9 p.m.
- 13 Volunteer Open House
- 19 Free Day at York Street
- John Fielder Lecture: Along Colorado's Continental Divide Trail
- New Member Party for members only!
- 26 Ultra Violet African Violet Club program Vines and Ground Covers
- 27 Beginning Botanical Watercolor
- 29 Indonesian Odyssey Slide Presentation
 Beginning Bonsai
 Romance & Lace: A Heart-Shaped Birch Wreath
- 31 Propagation Workshop Herbal Love Gifts
- 31-2/1 Incredible Edibles: Chocolate, Coffee & Breads

February

- 3 Herbal Love Gifts
- 3,4 Horticulture Magazine Symposium: The Art of Color
- 4 Botany for Gardeners Controlling Slope
- 5 Lawns, Low-water Grasses & Lawn Alternatives
- 6 Botanical Illustration Show Preview for members only! Free Day & Drop-in Tour at Chatfield Arboretum
- 7 Basics of Beekeeping

Note: Classes are in italics.

- 7-22 Botanical Illustration Show
- 8 Incredible, Edible Botany
- 9 Hot Beds Landscaping Basics
 - Winter Wonderland Wildlife Walk
- 11 Beginning Perennials
- 12 Theme Tour Guides Training
- 15 Getting Savvy with Salves
- 17 Hawks and Owls: Colorado's Soaring Beanties
- 19 A Spring Swag
- 21 Identifying Colorado Conifers
 Behind-the-Scenes Greenhouse Tour
 Simple Soaps
 The English Rose
 Understanding Front Range Soils
- 22 Home Vegetable Gardening
- 23 Rocky Mountain Horticulture I
- 25 Bonfils-Stanton Lecture
- 26 Dem Bones, Dem Bones, Dem Garden Bones
- 28 Landscape of China
- 28-3/1 Denver Orchid Society Spring Show & Sale



Green Thumb News



Denver Botanic Gardens

February 1998

Botanical art gives glimpse of summer

Denver Botanic Gardens' second annual Botanical Illustration Show will open to the public Saturday, Feb. 7, providing a glimpse of summer foliage and flowers to winter-weary eyes. The show will give DBG members and visitors an opportunity to see and purchase botanical illustrations by professional and amateur artists from across the nation. This year's juried show will feature nearly 100 exquisite drawings and paintings selected by professional botanical illustrator Katie Lee, artist Bill Hook and botanist/horticulturist Kelly Grummons.

Botanical illustration is a highly skilled and exacting art form that can satisfy the need for scientific precision more adeptly than any camera. Working with live specimens, botanical artists meticulously observe and show all of a plant's significant identifying features visible to the naked eye. At the same time, they produce real art in which composition, use of color, shading, line and technical skill combine to create works of great beauty.

Botanical illustration has many applications. One of the most unusual will be presented as the educational component of this year's show. The philosophy of this work presented by graduate students from the University of Colorado in Denver landscape architecture program is that art can seek its highest form in imitating nature, in this case, botanical nature. Each project in this special part of the show will consist of three drawings. The first one will be an illustration of a botanical. The second one will be an abstraction of the geometrical form and order of the botanical. The third will be an identification of the buildings or gardens that reflect the botanical's geometric forms and design principals. Assistant professor Ann Komara, M.L.A., chose three examples of her students' work for this educational exhibit.

Currently, botanical art is undergoing a revival, and collections are being formed by individuals and institutions around the world. In the U.S., botanical illustration courses and certificates are offered by several educational institutions, including DBG.

The show will be open through Feb. 22 from 9 a.m. to 5 p.m. each day in John C. Mitchell II Hall. Entrance to the show is included with gate admission (free to members). Many of the illustrations will be for sale, and a percentage of the sale will benefit DBG. For more information call 370-8021.

See colorful Santa Fe gardens

This year's Bonfils-Stanton Lecture Series begins with renowned photographer Charles Mann taking you on a stunning visual tour of the "Secret Gardens of Santa Fe" Wednesday, Feb. 25.

On this lyrical slide journey to the historic Southwest you'll experience the gardens of the city through a photographer's eye. The exuberant and brilliantly colored gardens of Santa Fe, hidden behind adobe walls, are at the heart of a city known throughout the world for its natural beauty. Noted photographer Mann captures the truly unique Western style expressed in the city's gardens. You'll view the gardens through the four seasons in a series of vignettes, looking down the back streets and behind the adobe walls of Santa Fe to discover the eclectic garden styles that make up a part of one of America's oldest and most unique communities.

Mann is a full-time freelance photographer specializing in garden and horticultural images, Southwestern scenes and Santa Fe color. His work has been featured in *Horticulture*, *Sunset*, *Better Homes & Gardens*, *Country Living Gardener*, *Fine Gardening*, DBG's *Mountain*, *Plain and Garden* and the past four years in calendars published by Fulcrum Press in Golden. He is considered to be one of the region's finest photographers and is noted for his stunning color photography that truly captures the essence of the places he visits.

Mann's program will be presented twice—promptly at 10 a.m. and 7 p.m.—in John C. Mitchell II Hall. Helen Fowler Library will be open before the lectures, and the Gift Shop will sell *Secret Gardens of Santa Fe* written by Sydney LeBlanc and photographed by Mann.



Last year's winning illustration was "Colorado Wildflowers" by Margaret Farr.

(continued on page 3: "Santa Fe gardens...")

Green Thumb News February 1998

Published monthly by Denver Botanic Gardens' Marketing and Special Events Dept., 909 York St., Denver, CO 80206 edited by Wendy Tucciarone horticulture editor Ken Slump Deadline for April issue: Feb. 20

Getting in touch with	DBG
General information	331-4000
TDD	370-8032
Dr. Green plant information	370-8068
Tues. and Thurs., 1 to 3 p.m	
Gift Shop	331-4009
9:30 a.m 4:30 p.m.	
Helen Fowler Library	370-8014
Sun. through Sat., 9 a.m. to	5 p.m.
Closed major holidays.	

Offices

Mon. through Fri., 8 a.m. to 5 p.m.

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Class registration	370-8020
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Media relations	370-8033
Membership services	370-8029
Plant society meetings	370-8097
Security, emergencies	370-8017
Special events information	370-8187
Tribute gifts	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

Class correction

Please note that the times listed in the winter class catalog for the class "Birds & Berries" March 26, April 2 and 9 were incorrect. The correct times are from 6 to 9 p.m. (not 1 to 4 p.m.). Please call the education office, 370-8020, with questions.

From the executive director

In preparation and anticipation

For every serious home gardener, the winter is a time of preparation and anticipation, and so it is with us at Denver Botanic Gardens, but this year in a far bigger way than usual, perhaps in the biggest way ever in our history.

Right now as you are reading this, we are preparing the detailed planting plans for four extraordinary new gardens in the southeast corner of the Gardens that will open this summer called the Romantic Gardens: the Fragrance Garden, the El Pomar Waterway Garden, the Schlessman Plaza and the Hildreth Native Garden. These Romantic Gardens will be one of our largest gardens and surely one of our most elegant and diverse.

But this is not enough. We are in the process of renovating the West Pond that lies between the Laura Smith Porter Plains Garden and the Gates Montane Garden which will make this pond more naturalistic and allow it to blend into the adjacent gardens. And we are putting the final touches on the planting plans for the expanded parking lot that will complete this facility and allow it to become a landscape feature itself.

But this is not enough. We are already planning and acquiring new plants for the renovated Conservatory, even though the construction is still in an early stage.

But this still is not enough. All the regular planning for new annual displays and diversifying the displays of perennials throughout the grounds, as well as the design for the water gardens also goes on during the winter months.

We are filled with anticipation over all these new plantings and displays that will raise Denver Botanic Gardens to a new horticultural plateau over the next several months. Please come and watch our progress, enjoy the Shofu-en, our magnificent Japanese Garden in the snow, and browse through Helen K. Fowler Library to get new ideas for your own garden!

Richard H. Daley

Missing issue needed

For all you long-time Denver Botanic Gardens members who save things, Helen Fowler Library is looking for a copy of the February 1965 Green Thumb News to complete DBG's archival collection that dates back to 1963, when the newsletter first was begun. If you have a copy of this treasure, please call the library, 370-8014, or bring it in to the library so we may make a copy. You'll receive the original back.



IMPROVEMENT PROJECTS UPDATE

It's February, cupid's month, and love is in the air. At DBG the construction crews are busy thinking romantic thoughts... about our progressing Romantic Gardens improvement project! If you peeked through the painted construction fence while visiting "Blossoms of Light," you probably noticed that the cold weather isn't stopping progress in this southeast corner of the Gardens. Much of the underground drainage and foundation work has been completed, and in the months to come the above-ground work will become much more visible.

Alvarado Construction has moved into the tropical conservatory. The workers have begun the task of clearing out all remaining plants and the hundreds of cubic yards of soil and roots that need to be removed. They also have begun demolition of the 30-year-old mechanical heating and cooling system that will be replaced. Six tulipshaped concrete light posts also have been successfully moved from inside the conservatory to the parking lot and are providing additional illumination and architecture needed to make our parking lot even more beautiful.

Poisonous plants invade DBG

An exhibit from Carnegie Mellon University named "Pretty Deadly: Poisonous Plants of Forest, Field and Garden" will be on display at Denver Botanic Gardens February through much of April.

The exhibit will include 45 original works of art of common poisonous plants, with labels and explanations for each picture. Poisonous species are found in all the major groups and growth forms of plants: algae, fungi, ferns, flowering plants, herbs, vines, shrubs and trees. Although much folklore surrounds poisonous plants, only a small number of known species actually produces toxic reactions. Some produce minor effects, and only a few are extremely dangerous. Poisonous plants are not only found in the wild woods, swamps and fields. Some familiar houseplants and garden ornamentals such as azaleas, hyacinths and iris can be harmful.

In conjunction with this exhibit, Boulder professor of biology Jane Bock will tell how plants are used to solve murders at DBG Thursday, Feb. 19. Cost for the lecture is \$10 for members, \$14 for nonmembers. Call the education office, 370-8020 to register.

Don't miss this exciting opportunity to learn about the dark side of our green friends.

Santa Fe gardens...

(continued from page 1)

Begun in 1987, the Bonfils-Stanton Lecture Series is named in honor of the Bonfils-Stanton Foundation, whose generous support makes it possible to bring renowned speakers from across the country to DBG. From tending your backyard perennial garden to environmentally sensitive design, the series explores the diversity of gardening. The lectures are for gardening enthusiasts, horticulturists, designers and anyone wishing to learn more about the wonderful world of plants.

Cost is \$8 for members, \$12 for nonmembers. There is a discounted rate if you preregister for the five-lecture series (\$35 for members, \$45 for nonmembers). Call for more information or to reserve your ticket, 370-8020.

Learn about legumes

Expand your knowledge of beans and peas at DBG's next "Incredible Edibles: Luscious Legumes" program Saturday and Sunday, March 7 and 8. From peanut butter to black-eyed peas, explore the diversity of cuisines that use beans. An important and nutritious food that is high in protein, legumes add a tasty note to American, Italian, Indian, Mexican and Asian foods. Throughout the weekend restaurants will be serving specialties from around the world, educational displays will highlight the dazzling diversity of beans, and kids can start their very own peanut plant to grow at home.

This spring's final "Incredible Edibles" program, "A Spring Fling," will highlight the flowers and food of the sunflower family April 4 and 5.

"Incredible Edibles" programs are from 9 a.m. to 5 p.m. in John C. Mitchell II Hall and are included with gate admission (free to DBG members). Preregistration is not necessary. For more information, call 370-8041.

Orchids bloom at DBG

Denver Botanic Gardens' John C. Mitchell II Hall will be overtaken with blooming, colorful orchids at the Denver Orchid Society's annual spring show and sale Saturday and Sunday, Feb. 28 and March 1. A variety of orchids to please novices and collectors will be on display and for sale. The Orchid Doctor will be on-hand to answer all your orchid growing questions. The event is from 10 a.m. to 5 p.m. each day and is included with admission to the Gardens (free to members). For more information, call 370-8187.



A peek at a Santa Fe garden by Charles Mann.

Save the date for roses

The Denver Rose Society will hold its annual symposium, "Making a Rose Garden," in DBG's John C. Mitchell II Hall Saturday, March 14. You can learn all about tending your own rose garden from local rose experts. The symposium will be included with admission to the Gardens. Watch next month's *Green Thumb News* for complete information.

Thanks, 'Blossoms' volunteers

DBG's marketing and special events department sends out blossoms of thanks to the volunteers, staff, entertainers and sponsors for the work they contributed to the 1997 "Blossoms of Light." The event was a great success, and the light displays and entertainment were enjoyed by thousands of people.

Keeping cut flowers fresh

Cut flowers never seem to last as long as we'd like. Their vase life depends on the kind of flower, the stage at which it was harvested and how it is cared for before and after purchase. There's not much we can do about each species' inherent ability to last after cutting, but we often may select our own cut flowers and certainly have control over how they are handled after we receive them.

With most types of flowers, blossoms that are somewhat closed, but are showing good flower color, usually will last the longest. Tightly closed, greenish buds may fail to open, and mature flowers usually decline quickly. In selecting flowers that grow in clusters or spikes, choose those with about a third of the flowers open, a third of the buds showing color and a third yet closed.

There seems to be no shortage of advice regarding recipes and additives to your water that will help prolong the life of cut flowers. The flower preservatives provided by florists usually are effective, but you can also use common household ingredients. A University of California Extension Service recipe recommends using one part lemon-lime soda (do not use a diet drink) to three parts water. To each quart of the mixture add a quarter teaspoon of household bleach.

The sugar in the soda provides nourishment to help the buds open; acid in the beverage helps liquids move through the stems. The bleach prevents bacterial and fungal growths which clog flowers' stems and shorten vase life. Using this mixture, flowers reportedly last longer than when using commercial preservers.

Whether you use additives or plain tap water, flowers will last longer if you change the water daily, re-cut stems, use a clean vase and avoid placing the flowers in a sunny or hot location. Your flowers will last much longer if you take the time to refrigerate them at night. Many florists also recommend that you cut the stems under water, on an angle.



Seychelles stilt palm (Verschaffeltia splendida)

The genus *Verschaffeltia* consists of a single species and belongs to the palm family, Palmae. This plant is endemic to the Seychelles Islands and lives on steep slopes and gorges from sea level to about 1,800 feet. It is relatively common in its home islands, and it plays a part in the local economy.

Verschaffeltia can attain a height of 75 feet, but it is usually considerably shorter. It has a solitary erect trunk with rings of long, black spines. The trunk is braced at its base with prominent stilt roots that angle outward from the lower part of the trunk and anchor into the ground. These "stilts," which are actually aerial roots, can arise 3 feet above ground level. They are believed to be devices that aid the plant in retaining its hold in the unstable soils of steep slopes on which it grows. The leaves are simple and undivided, and in young specimens are quite majestic, being bright green, broad and pleated. In mature plants the entire leaf is split, usually broad and forms an attractive crown. The inflorescence (flower structure) arises from among the leaves.

Look for the Seychelles stilt palm in DBG's renovated tropical conservatory when it reopens in late 1998.

Gary Davis Greenhouse Supervisor



Verschaffeltia splendida drawn by Jayme S. Irvin.

The Seychelles stilt palm or Latanier latte (*Verschaffeltia splendida*) is one of six endemic species of palms from the Seychelles Islands. These islands are in the Indian Ocean 700 miles northeast of Madagascar and 900 miles from the coast of East Africa. The Seychelles stilt palm's closest relatives are *Roscheria*, also from the Seychelles, and *Oncosperma* from Malaya. The palm, along with other plants such as the pitcher plant, and animals such as flying foxes and hawk owls, are clues that Africa and Asia were, in the distant past, much closer together.

On its native islands the plant is suffering from habitat destruction. It is now only seen in relic forests. In the past, when the forests were more abundant, its split trunks were used to make gutter-like water conduits, walls (its name in the Seychelles means lath) and gutters of houses. It is a very desirable ornamental palm, prized for both its beauty and interesting growth characteristics.

Sources for this article found in Helen K. Fowler Library are:

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Stewart, Lynette. A Guide to Palms & Cycads of the World. Sydney: Angus & Robertson, 1994. QK 495 .P17 S74 1994.

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Answers from Dr. Green

Here is a sample of the many questions received on DBG's Dr. Green plant information help line.

Q. What can I do to save some of my houseplants that were over-watered by my house-sitter?

A. Over-watering is the most common cause of plant death, both indoors and out. Plants, to varying degrees, require oxygen in their root zones, and many species quickly succumb if left too long in soggy, water-logged soils. Most people with "green thumbs" understand the characteristics of their potting media and garden soils. They know how to amend the soil, select plants suited to it and water appropriately. A healthy plant starts with a healthy root system. Whether your plants can be saved will depend on the severity of damage. Remove the affected plants from their pots and inspect the roots. Healthy roots are firm and usually light brown to whitish in color. Trim away any roots that are mushy or rotten, repot the plant in good soil and resume normal care. Do not give the plant extra water or fertilizer treatments as it recovers. If too many roots have been damaged, the plant may be lost.

Q. What is a systemic insecticide?

A. Systemic insecticides are absorbed by the plant and circulated through its tissues. Therefore, insects that feed on any part of the plant should ingest the insecticide and die. The alternative is a contact spray which must be sprayed directly on insect pests to be effective. Either sort may be sprayed on the plant foliage, but systemic insecticides are frequently applied to the soil and absorbed by the plant's roots.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message anytime for a return call, 370-8068.



'Colorado Gold' hardy gazania

Plant Select® profile

'Colorado Gold' hardy gazania (*Gazania linearis* 'Colorado Gold') was chosen by DBG and C.S.U. as one of six Plant Select® choices for 1998—plants of superior garden merit for the Rocky Mountain Region.

Many visitors to DBG in recent years have noticed a plant with brilliant golden flowers in various gardens that seems to be perpetually in bloom. Last winter this plant even had fresh flowers at Christmas and Valentine's Day. Unlike the tender hybrids, the hardy gazania forms a much more attractive evergreen mat and has its flowers open quite early in the morning, only closing them in inclement weather or at night. It has performed spectacularly in Evergreen and other mountain communities—so it is no marginally hardy waif, but an extraordinarily tough strain that has been developed from a number of wild collections that surely is as good as gold in the garden.

'Colorado Gold' hardy gazania will be available for purchase at DBG's annual Plant and Book Sale May 8 and 9, and at garden centers and nurseries this spring.

Employee of the month

Adult education specialist Paula Ogilvie was voted by her co-workers as December's employee of the month. Paula was honored for her outstanding initiative and commitment to the Gardens. She has developed creative educational programs that increased DBG's membership and attendance substantially. In addition to her regular duties, Paula played a major part in developing the Incredible Edibles series and the gardening certificate program, as well as bringing to DBG the Healing Power of Plants exhibit last fall. Great work, Paula!

Children's program volunteers needed

If you would like to inspire children to become knowledgeable about the plant world in which they live, why not consider volunteering for Denver Botanic Gardens? You can share your enthusiasm for plant life with visiting students. You'll be matched up with the age group of your choice, and staff will provide training to help you achieve success and a sense of personal satisfaction with volunteer experiences. Volunteering is challenging, but always rewarding!

For more information on volunteering, please contact the volunteer office, 370-8049. For program information, call the youth education department, 370-8043.

A new space for kids

DBG's youth education department will be collaborating with the Community Gardens on the development of a space to be used just for children. Currently under consideration, the "Plant and Pick" garden will provide a space where children can have fun planting and harvesting fresh vegetables. Watch for more information in future issues of *Green Thumb News*.

Take a desert trip

Denver Botanic Gardens' executive director Richard H. Daley will lead a spring-time exploration of Arizona April 1 to 5. The tour will center around the towns of Phoenix and Tucson, where participants will explore the deserts and mountains in search of blooming cacti and wild-flowers and immerse themselves in the history and culture of the southwest.

Highlights will include a tour and reception at Desert Botanical Gardens, visits to private gardens, two nights at the famous Hermosa Inn Resort, a group dinner at "Lon's," a visit to the Heard Museum and Mission San Xavier Del Bac, a tour of Boyce Arboretum and Biosphere II, a wildflower hike at Picachio Peak, a hike through the Patagonia Conservancy Area, a tour and reception at the AZ-Sonora Desert Museum and an exploration of the Saquaro National Monument.

Cost is \$895 and includes lodging, motor-coach transportation, most meals, special receptions, voluntary tax deductible donation to DBG, entrance fees and guiding services. Reservations must be made by Feb. 13. Call 370-8051 for more information or to register.

Intern applications due

A reminder to interested students in botany or horticulture that all application materials for the DBG's Summer Internship in Applied Horticulture are due by Feb. 17. Students must have completed their sophomore year in college with at least a 2.5 grade point average and have completed basic course work in horticulture and botany. For more information call Paula Ogilvie, 370-8041.

Circa Botanica offers more benefits

Starting in 1998, annual donors contributing \$2,500 or more to DBG will be recognized as supporters of "Circa Botanica," our newest giving level. These generous individuals will receive special benefits for their outstanding support of the Gardens. Highlights include complimentary tickets to special events, including the Fête des Fleurs and Plant Sale Preview Party, weekend wildflower and garden tours, and private after-hour dinners and tours of DBG.

Circa Botanica was created to recognize those special individuals who believe whole-heartedly in contributing to DBG's current and future accomplishments. If you or someone you know is interested in donating at the Circa Botanica level, please contact Jennifer Darling, 370-8027.

Plan now to help DBG

Denver Botanic Gardens is launching a comprehensive planned giving program in early 1998. Under the knowledgeable guidance and supervision of a talented group of trustees and advisors, the Gardens will promote planned gifts among its constituents.

Efforts will be made to educate DBG members and friends in the relative ease of providing support for the Gardens well into the future. Making a planned gift can be easy and often results in tax-saving benefits for donors and their heirs

Planned gifts, such as bequests and charitable remainder trusts, are an effective way to ensure that future generations can enjoy the splendor of the Gardens and the full breadth of the services it now provides.

For more information, please call Jennifer Darling, 370-8027, or talk with your financial advisor about including the Gardens in your estate plans.

Tributes

In memory of Anna R. Garrey Morse Family Foundation In memory of William and Robert Hewit Mr. and Mrs. Thomas E. Taplin In memory of Max Nancy Nelson In memory of Katherine Otto Mr. and Mrs. Elmer Ausfahl Jim and Pat Beedle Ms. Johanna Carouso Mr. Robert Cline Mr. Gary Hanneman Mrs. Dorothy Hein Ms. Christine Hussett Mr. and Mrs. Lloyd Mullennix Ms. Zona M. Rumbaugh In memory of M. Walter Pesman Mr. and Mrs. Gerald H. Pesman In memory of Frances Doyle Rice Mr. and Mrs. Gordon E. Lewis In memory of Mary Hart Smith Viola Tumer In memory of Paul L. Swalm

Birthdays...Anniversaries...Memorials...

Crestmoor Garden Club

You can make a contribution to the Gardens in memory or in honor of someone you love. It's a thoughtful tribute and a helpful gift to our institution. Please call (303) 370-8055 for more information.

'Healing Plants' ads win award

Recently, the Denver Advertising Federation honored Denver Botanic Gardens and Thomas & Perkins advertising firm for the work done to promote DBG's "Healing Power of Plants" exhibit last fall. More than 200 entries in 10 categories competed for the coveted Halo Awards, presented to advertising people for their pro bono (donated time) campaigns for nonprofit groups. DBG came out on top with a gold medal for the "complete advertising campaign" category, one of the most difficult categories to win. The ad campaign that ran last fall included print, radio and television ads that informed the public about DBG's "Healing Power of Plants" exhibit.

From your membership office

List exchanges

DBG occasionally exchanges our members' names with other cultural organizations. If you prefer that we do not give your name out, please call the membership office, 370-8029, and leave a message indicating so. Include your name and your member ID number. (If you have given us this information before, it will remain on your record unless you tell us otherwise; there is no need to call again.)

Use your library

One of the nicest benefits of membership for all DBG members is that you can visit Helen Fowler Library and check out books and videos for a three week loan period. (You can return books you check out from DBG's library to the Denver Public Library if it is easier for you.) Come in and browse through the thousands of books, spring catalogs and the extensive magazine rack as you begin to plan your summer garden. Or, check out the brochure file with information on other botanic gardens and vacation destinations before planning your next trip. Your membership card lets you do all this, and so much more!

See blooming gardens of Europe

The Garden Club of Denver is sponsoring a slide show by Englishwoman Inga Stone that highlights European gardens Tuesday, March 10, at 10 a.m. in Denver Botanic Gardens' John C. Mitchell II Hall.

Take a visual grand tour of some very special gardens in England, France, Italy and Switzerland, and see these beautiful gardens in full bloom—in the dead of Colorado's winter. After the slide show, you can stay for a quick lunch and talk more with Stone and other Garden Club of Denver members.

Cost for the program is \$25. Cost for the lunch is an additional \$10. Funds raised go to support DBG's Mount Goliath project on Mount Evans. For more information or to make your reservations, call Rhonda Grant, 321-1566.

Changes in membership tax deductions

Members, please note: the Fair Market Value (FMV) for 1997 upper-level memberships has been recalculated. The FMV for the three lowest membership levels remains unchanged.

To determine your tax deductible amount, subtract the 1997 FMV from the total amount you paid for your membership in 1997:

Membership level	Fair Market Value	Deductible Amount (if you paid the full amount)
Gardener (\$25)	\$8	\$17
Landscaper (\$35)	\$8	\$27
Arbor Circle (\$50)	\$8	\$42
Botanist Club (\$120)	\$72	\$48
Conservator's Society (\$2	240) \$136	\$104
Perennial Partners (\$500)	\$246	\$254

February

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Denver Botanic Gardens

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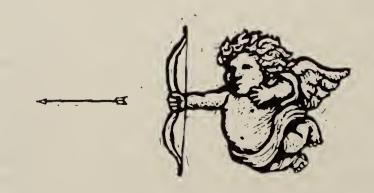
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February

- 2 Herbal Love Gifts
- 3 Rocky Mountain Bonsai Society meeting
- 3, 4 Horticulture Magazine Symposium: The Art of Color
- 4 Botany for Gardeners Controlling Slope
- 5 Lawns, Low-water Grasses & Lawn Alternatives Introduction to Horticultural Therapy
- 6 Botanical Illustration Show Preview—for members only! Free Day & Drop-in Tour at Chatfield Arboretum
- 7 Basics of Beekeeping
 Gloxinia Gesneriad Growers Society meeting
 American Iris Society meeting
- 7-22 Botanical Illustration Show
- 8 Incredible, Edible Botany Winter Wonderland: Wildlife Walk
- 9 Hot Beds Landscaping Basics
- 10 Colorado Cactus & Succulent Society meeting
- 11 Beginning Perennials
- 12 Theme Tour Guides Training
 Denver Rose Society meeting
- 14 Rocky Mountain Orchid Judging Center meeting
- 15 Getting Savvy with Salves The World of Teas
- 17 Hawks and Owls: Colorado's Soaring Beauties Rocky Mountain Bonsai Society workshop
- The World of Teas
 Herb Society of America meeting
 North American Rock Garden Society meeting

- 19 A Spring Swag
 Using Plants to Solve Murders
- 21 Identifying Colorado Conifers
 Behind-the-Scenes Greenhouse Tour
 Simple Soaps
 The English Rose
 Understanding Front Range Soils
- 22 Home Vegetable Gardening
- 23 Rocky Mountain Horticulture I
 Ultra Violet Club meeting
- 24 Colorado Native Plant Society meeting
- 25 Bonfils-Stanton Lecture: Charles Mann
- Dem Bones, Dem Bones, Dem Garden Bones
 Gardeners of America meeting
 Ikebana International meeting
 African Violet Society of Denver meeting
- 28 Landscape of ChinaBasic Herb CookeryRocky Mountain Bonsai Society workshop
- 28-3/1 Denver Orchid Society Spring Show & Sale



Green Municipal News

Denver Botanic Gardens

Werah 1998



Create a romantic lawn

John Greenlee will show ways to make your yard more beautiful in "Creating Fragrant, Romantic Meadows and Natural Lawns" at Denver Botanic Gardens Wednesday, March 25. The presentation is the second in a series of annual lectures sponsored by the Bonfils-Stanton Foundation.

Greenlee will show creative ways grasses can be incorporated into fragrant and romantic lawns that can be walked upon, mowed or un-mowed, depending upon individual interests. He also will show how to combine grasses with roses and perennials for romantic, natural designs, and how to re-create a "mountain meadow" in a section of your Denver yard.

Greenlee is an internationally renowned horticulturist who specializes in the cultivation and study of grasses. He authored *The Encyclopedia of Ornamental Grasses* and has hosted 29 episodes of the PBS television series, "The New Garden." He is a passionate advocate of ecologically sound gardens and lawns. Greenlee is owner and founder of Greenlee Nursery, a national leader in the production and promotion of native and ornamental grasses and grass-like plants. He also leads a design and building landscaping firm that specializes in custom residential design. His garden designs have won several landscaping awards from the American Society of Landscape Architects and the California Landscape Contractors Association. He owns nurseries in Malibu and Pomona, Calif., both of which have been photographed and featured in publications such as *Garden Design*, *Horticulture*, *Martha Stewart Living*, *Sunset* and *The Denver Post* last summer.

Greenlee's program will be presented twice—promptly at 10 a.m. and 7 p.m.—in John C. Mitchell II Hall. The Helen Fowler Library will be open before the lectures, and the Gift Shop will sell Greenlee's *The Encyclopedia of Ornamental Grasses*.

Begun in 1987, the Bonfils-Stanton Lecture Series is named in honor of the Bonfils-Stanton Foundation, whose generous support makes it possible to bring renowned speakers from across the country to DBG.

Cost is \$8 for members, \$12 for nonmembers. Call the registration office to register, 370-8020. Walk-ins are welcome; please leave time for parking.



If you don't know beans about beans, mark your calendar for Denver Botanic Gardens' next Incredible Edibles weekend, "Luscious Legumes," March 7 and 8. Take a culinary tour around the world while learning about this fascinating plant family that includes such widely different foods as peanut butter, minestrone soup, hummus, bean burritos, baked beans and soy sauce.

The Women's Bean Project and other area restaurants will offer samples and sales of bean products. Local chefs will demonstrate cooking with legumes, and DBG's gardeners will teach how to grow them. Noted chef Shawn Kelly, owner of Aubergine Cafe, will do a cooking demonstration both days at 1 p.m. Children can take home their own peanut and watch it grow into a plant. Information at a legume market will ensure that you learn your beans!

On April 4 and 5, the series will continue with "A Spring Fling" where you'll discover early spring treats and get tips for your own spring garden. The weekend will highlight artichokes, asparagus and sunflowers, as well as herbs and salads. Educational exhibits, children's activities and local restaurants serving specialties from around the world will complete the culinary weekend.

All Incredible Edible programs are included with admission to the Gardens (free to DBG members). Activities are ongoing throughout the day from 9 a.m. to 5 p.m. in John C. Mitchell II Hall. You don't need to pre-register—just stop by and explore the diversity of plants and the cuisines they inspire. For more information call 370-8041.



John Greenlee

Green Thumb News March 1998

Published monthly by Denver Botanic Gardens' Marketing and Special Events Dept., 909 York St., Denver, CO 80206 edited by Wendy Tucciarone horticulture editor Ken Slump Deadline for May issue: March 20

Getting in touch with DBG

0	
General information	331-4000
TDD	370-8032
Dr. Green plant information	370-8068
Tues. and Thurs., 1 to 3 p.n	ι.
Gift Shop	331-4009
9:30 a.m 4:30 p.m.	
Helen Fowler Library	370-8014
Sun. through Sat., 9 a.m. to	5 p.m.
Closed major holidays.	
	TDD Dr. Green plant information Tues. and Thurs., 1 to 3 p.m Gift Shop 9:30 a.m 4:30 p.m. Helen Fowler Library Sun. through Sat., 9 a.m. to

Offices

Mon. through Fri., 8 a.m. to 5 p.m.

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Class registration	370-8020
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Media relations	370-8033
Membership services	370-8029
Plant society meetings	370-8097
Security, emergencies	370-8017
Special events information	370-8187
Tribute gifts	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

From the executive director Plant introductions: Promise and problems

Introducing new plants to Colorado gardeners is an important part of Denver Botanic Gardens' horticultural mission. They add beauty and diversity to our gardens, bring us joy and, often times, fill special "needs" in our gardens. However we want to be sure they stay in gardens.

Unfortunately, in the past, some plant introductions have escaped from cultivation and become major, noxious weeds in our native landscapes. None of DBG's introductions have done this, but we must be vigilant in our efforts to ensure this never happens.

A few "escapees" that you may be familiar with—purple loosestrife, leafy spurge, bachelor's buttons, Russian olive and tamarisk—have all created significant problems for Colorado native plants. By having aggressive means of spreading, usually through production of many easily dispersed seeds, these and other plants have reduced the native plant diversity in many natural areas. In some areas, they have become serious agricultural pests that reduce the productivity of farms and ranchlands.

Because Denver Botanic Gardens is committed to being an environmental leader, we have taken new steps to be as careful as we can with any plant we are testing for potential introduction. We are working with scientists from the West and around the country to develop a model "protocol" to use in assessing these plants before they are released. We will not release any plants that show such invasive tendencies, and in most cases, will (and have in the past) remove them from our own collections. As we refine this protocol, we believe it will become the model for other botanical gardens and arboreta.

Of the thousands of plants introduced over the past two centuries into America, only a few dozen have proven noxious. But these few dozen have done great damage. The Nature Conservancy estimates that more than \$79 billion in damage has been done to the U.S. economy because of these few plants. At Denver Botanic Gardens, we are pledged to never add to this problem, and, in fact, through education and information, we hope to reduce the problem whenever possible. Our goal, like yours I hope, is to find wonderful ways to enhance our lives with plants in the most environmentally responsible ways.

Richard H. Daley Executive Director



IMPROVEMENT PROJECTS UPDATE

A different sight, indeed! All the plant material, remaining light structures and boulders were moved from inside the tropical conservatory, and the workers have extracted the old mechanical and electrical systems. The underground utilities, wall footings and free foundation now are visible. Be sure to take a look through the new progress window in the lobby court, or ascend the steps at the west end of the lobby court and peek in those windows at the conservatory during your next visit to DBG. Seeing the massive space—empty of everything else—really will make you appreciate the depth and width of this project!

Finishing touches have been completed to the parking lot, and spring weather permitting, land-scaping will begin next month. Foundation work continues in the Romantic Gardens area. The horticulture staff has been busy during these cold winter months planning the beautiful plant displays that will fill these intimate garden spaces.



Trustee Ed Connors was the first to check out DBG's new website. Check it out at www.botanicgardens.org, then check back this summer for a dramatically improved site!

See blooming violets

The Rocky Mountain African Violet Council will hold its 35th annual spring show and sale, "Out of Africa," at Denver Botanic Gardens Saturday and Sunday, March 21 and 22.

Hundreds of plants will be shown in all colors and varieties, and experts will be available to offer growing advice. In addition to blooming African violets, many starter plants and other gesneriads will be for sale.

The event will be in John C. Mitchell II Hall on Saturday from 1 to 4:30 p.m. and Sunday from 10 a.m. to 4 p.m. It is included with admission to the Gardens (free to DBG members). For more information call Nelly Levine, 423-6072.

Plant Sale poster image selected

"Water Garden," an original oil painting by John Lencicki, will brighten this year's Plant and Book Sale. Lencicki was able to capture the recovering beauty of DBG's water lily garden just two weeks after last summer's devastating hailstorm.

A native of the Berkshires in Massachusetts and a graduate of Pratt Institute in New York, the artist worked for several years as an illustrator in New York City and as creative director for the educational service of the New York Times. He moved to Denver in the early 1970s and now teaches at the Art Students League and the Rocky Mountain College of Art & Design.

Featured in the November 1988 issue of *American Artist* magazine and the subsequent 1996 *Oil Highlights* edition, Lencicki is known as a colorist and a master of figure painting. His works may be seen in the collections of US West, the corporate headquarters of Amtrol Corporation in Rhode Island, and in many private collections. He is represented in Denver by Saks Galleries in Cherry Creek and in Dallas, Texas, by Southwest Gallery.

"Water Garden" will be auctioned at this year's Plant Sale Preview Party May 7. Decorator posters with the "Water Garden" image will be sold at the Plant and Book Sale May 8 and 9, and in the DBG Gift Shop after the sale.

Goliath guides needed

Guides are needed to lead summer tours on Denver Botanic Gardens' Mt. Goliath trail on Mt. Evans this summer. Training begins in May.

Tundra flowers hold a special fascination for both amateur and professional botanists, and the Mt. Goliath trail is known for its colorful display of wildflowers that bloom from late June to early August. The carpet of wildflowers is complemented by dramatic mountain vistas and the grizzled beauty of bristlecone pines, some of which are more than 1,000 years old.

If you are interested in guiding tours on this fascinating trail this summer, plan to attend an orientation May 5 at 9 a.m. Tour guide training will continue on Tuesdays, May 19, 26 and June 12. There is a \$10 materials fee. To register for the program, call DBG's education office, 370-8020. With questions about the Mt. Goliath guide training, call guide Lynn Blair, 861-7513.



"Water Garden" by John Lencicki

Improvements planned at Mt. Goliath

Located on the scenic road to Mt. Evans at an elevation of 11,500 feet, Denver Botanic Gardens' Mt. Goliath alpine site showcases subalpine and alpine plants, along with the northernmost, highest elevation bristlecone pine community in the U.S. Since 1958 DBG has managed the site for the U.S. Forest Service. The Garden Club of Denver made a three-year pledge to contribute volunteer and financial support to help with the creation of an educational interpretive site at Mt. Goliath. Well into the second year of the program, this Mt. Goliath Partnership has generated excitement and renewed interest in this alpine unit.

Last year, a color flower identification brochure was produced and distributed, and tours were formally offered at the Mt. Goliath site for the first time. All 53 spots filled to capacity. Also, a multi-panel display depicting alpine plant growth forms was created for the "hut" in the lower Mt. Goliath parking lot. A summer intern was hired to develop a botanical inventory, and herbarium sheets of plants found at Mt. Goliath were reviewed.

The coming year holds great promise for the Mt. Goliath project. Volunteers for Outdoor Colorado has agreed to help the Partnership relocate the lower portion of the Mt. Goliath Pesman Trail. The construction will take place Aug. 22 and 23, and volunteers are welcome. A universally accessible interpretive site will be built at the base of the lower trail. Several grants and donations already have been received for the Mt. Goliath project. Watch upcoming issues of *Green Thumb News* for updates on DBG's montane site.

Picotee: A term describing a flower of one basic color with petals that have an edge or margin of another color (often white), as in this 'Merlin Picotee' hybrid petunia.

Using color in the garden

Color is a powerful, yet frequently misunderstood and misused element of design. The National Garden Bureau offers advice that may help you employ color more effectively as you plan you gardens for the upcoming season.

Try to envision your garden as a three-dimensional painting. Let broad strokes of your favorite colors dominate the design, and accent with dabs of other hues here and there. Keep the entire panorama of your garden in mind, rather than focusing on its smaller parts.

Brighten shady areas with light colored flowers. Dark blossoms get lost in the shade but may be used if surrounded by lighter colors to provide contrast. To maximize effect, flower colors should contrast against their surroundings. For example, red flowered plants are usually a poor choice to plant in front of a red brick building or redwood fence. Pink, white or a lighter color would provide better contrast and be seen more easily.

Choose three or four colors for your main "color scheme" and repeat them with different plants throughout the garden. Such repetition will provide unity in the garden in the same way that an interior decorator uses color to tie together a home's decor. Each garden area needs a focal point. Color may provide that focal point in areas needing one. Rather than a long row of a single color of flowers, try a mass of color surrounded by a contrasting hue. Use eye-catching color to distract attention from elements you cannot hide, such as utility poles or fire hydrants.

Consider the emotional response various colors elicit. Warm colors, such as red, yellow and orange are considered exciting and vibrant, while the cooler hues of blue, green and purple are deemed more restful and calming. Flower colors suffer the same trends of popularity as most other consumer items. Purple and blue-violet flowers are becoming increasingly popular, and yellow shades, including gold and yellow-green, are making a strong comeback after years of absence. Bright, strong colors currently are more popular than pastels.



Balsa (Ochroma pyramidale)

Balsa (*Ochroma pyramidale*) is a native throughout much of tropical America and the West Indies. Its common name is an aboriginal one that means "raft" and alludes to the common use of the tree's wood by regional natives for raft construction. Logs of balsa were used to construct the famous raft, Kon-Tiki. Balsa wood is the lightest commercial lumber and has many uses, including model airplane construction, boxes, fishnet floats and insulation. Ropes have been made from the fibers in the bark, and the hairs surrounding the seeds have stuffed pillows and mattresses.

The plant is a fast-growing evergreen tree, 50 to 80 feet in height with a branched, spreading, open crown. The tubular, bell- to trumpet-shaped blooms are yellowish to brownish white and are 5 to 6 inches long by 3 to 4 inches broad. It has slender fruit that grows to 1 foot long with many seeds embedded in dense masses of tawny-woolly hairs.

Look for a balsa tree in DBG's renovated tropical conservatory when it reopens in late 1998.

Gary Davis Greenhouse Supervisor



Ochroma pyramidale drawn by Jayme S. Irvin.

Balsa wood from the *Ochroma pyramidale* tree is obtained from plantations. Seeds germinate easily, and within five or six years, when the tree is 50 to 60 feet tall and 24 to 30 inches in diameter, the wood is ready to harvest. The biggest problem with plantation growing is damaging the young balsa trees. When very young, the trees are brittle and easily damaged or killed. Older trees also can be damaged with improper handling, and the damage can cause the wood to have a courser texture, making it unsuitable for typical balsa wood uses. If the trees are left on the plantation longer than seven years, they develop a tap root, and the center of the tree becomes saturated with water and starts to decompose. Then, the wood can no longer be sold.

The use of balsa wood changed many industries. During World War I wood was harvested for life jackets, rafts and mine buoys. It became strategically important in the North Sea, where a 250-mile mine barricade was created with balsa wood buoys. For a time period, it also revolutionized transportation. With the advent of balsa wood crates, transportation costs for food items that previously were transported in heavier crates were significantly decreased. Balsa wood is also an insulator, and before refrigeration, food was pre-cooled with ice then transported in trucks lined with the wood.

Source for this article found in Helen K. Fowler Library is:

Record, Samuel J. Timbers of the New World. New Haven: Yale University Press, 1943. SD 434 R4466.

Answers from Dr. Green

Here is a sample of the many questions received on DBG's Dr. Green plant information help line.

Q. I was advised to improve my garden soil by incorporating the wood ashes from my fireplace. Will they help?

A. This is a commonly recommended practice for gardeners in the East and Midwestern parts of this country, where soils generally have a pH that is acid or neutral. Wood ashes are alkaline and contain salts high in potassium, both of which can enhance acid soils. However, Front Range soils are generally alkaline. Adding wood ashes will simply magnify their shortcomings, rather than improve on them. Mountain soils, on the other hand, are frequently more acidic. A soil pH test can guide your decision.

Q. Would you give me some guidelines for winter watering my landscape?

A. Sunny, warm winter days and dry Chinook winds can quickly desiccate our trees, shrubs and lawns, particularly when snows are infrequent and melt quickly. If four weeks elapse without snow, you should consider watering the landscape if the temperatures are above freezing and the ground is not frozen. Water early in the day so moisture may soak into the ground before the return of freezing nighttime temperatures. To avoid excessive evaporation, use sprinklers that produce small droplets rather than a fine mist. Run these for about 30 minutes in each area. Soil watering probes can be useful with recently transplanted trees and shrubs. Take care to disconnect and drain hoses and sprinklers after use. Don't use automatic sprinkler systems during freezing weather.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message anytime for a return call, 370-8068.

Rock gardener featured in magazine

Denver Botanic Gardens' Rock Alpine Garden curator Panayoti Kelaidis and his wife, Gwen, recently were featured in the January/February issue of *The American Gardener*, a magazine written for advanced amateur gardeners.

The five-page feature article titled "Love on the Rocks" highlights the Kelaidises' passion for rock gardening, describing their home garden, seed collection trips and some of their favorite rare rock alpine plants. Be sure to peruse the article in DBG's Helen Fowler Library on your next visit to the Gardens.



'Purple Mountain' sun daisy

Plant Select® profile

'Purple Mountain' sun daisy (Osteospermum barberiae v. compactum 'Purple Mountain') was chosen by DBG, C.S.U. and the Green Industries of Colorado as one of six Plant Select® choices for 1998—plants of superior garden merit for the Rocky Mountain Region.

Adventurous local gardeners have long been familiar with the lush, shrubby daisies that grace pots and California highways with equal vigor. Few are aware, however, that there are much more restrained and elegant alpine representatives in this genus that bloom much longer in our heat and thrive in a wide assortment of sites and soils in our gardens. No sun daisy can compare with 'Purple Mountain' for deep coloration or compact habit. It quickly forms a lustrous evergreen mat that sports these lavish, deep purple flowers from April to autumn frost, with just a little judicious dead heading.

'Purple Mountain' sun daisy will be available for purchase at DBG's annual Plant and Book Sale May 8 and 9, and at garden centers and nurseries this spring.



Introducing 24-hour answers for the Colorado gardener

Plant*talk* Colorado™ is a 24-hour toll-free automated phone service that provides you with reliable, timely information on a variety of horticultural topics. Plant*talk* Colorado is sponsored by Colorado State University Cooperative Extension, Denver Botanic Gardens and the Green Industries of Colorado.

About the Service

Plant*talk* Colorado can be accessed by using any touch-tone phone. Topics range from Annuals to Xeriscape[™] — and everything in between — that gardeners need to know in the variable climate and micro-climates of Colorado.

How to Obtain Information

Dial 1-888-666-3063

Then press the number for the choice you wish to make from the menu.

Menu

Press 1 to hear about a topic.

Enter subject code to hear message (listed on back)

To replay that message press 1.

To hear a new message press 2.

Press 2 to hear the feature message.

Press 3 to have a listing of topics mailed to you.

Helpful hints for the above choices

Press 5 to rewind 10 seconds back at any time during the message.

Press * to return to the main menu at any time during the call.

Hang up to exit the system at any time.





Denver Botanic Gardens





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	uals & Perennials		seplants	Lawı		_	etables
1005	Annuals	1301	African violet	1501	Brown tracks & wheel marks	1801	Baby pumpkins
1006	Bulbs: alliums	1302	Aluminum & artillery plants	1512	Buffalo grass lawns	1802	Buying & hardening transplants
1007	Bulbs: bed preparation	1303	Amaryllis	1502	Choosing a lawn care company	1803	Chile peppers
1008	Bulbs: colchicum	1304	Avocado	1513	Crabgrass	1804	Cool season leaf varieties
1009	Bulbs: fall flowering crocus	1305	Bromeliads	1503	Dog spots	1805	Cucumbers & squash
1010	Bulbs: maintaining	1306	Cactus	1504	Grass clippings	1820	Cultural tips for
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1019	Perennials: maintaining		•	1311	Zoysia grass	1816	Sweet corn
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1208 Strawberries

1211 Training young trees

1415 Powdery mildew

1432 Puncture vine

1418 Tree leaf scorch

1416 Spider mites1417 Tree borers

Learn about roses

The Denver Rose Society will hold its annual symposium, "Creating a Rose Garden," in DBG's John C. Mitchell II Hall Saturday, March 14. Consulting rosarians will address critical aspects of planning and maintaining a rose garden. Topics will include planning, designing, choosing plant materials, preparing soil, planting, pruning and maintaining a rose garden. Time will be allotted to address specific questions. The symposium is from 9:30 a.m. to 1:30 p.m. and is included with admission to the Gardens (free to DBG members). For information call Jim Lindenmuth, 341-5888.

Crop of cacti for sale

The Colorado Cactus and Succulent Society will hold its show and sale at Denver Botanic Gardens Saturday and Sunday, March 28 and 29.

This year's sale will feature thousands of cacti and succulents, including many winter-hardy plants for Colorado. Experts will be on-hand to answer questions and talk about growing cacti. Visitors can attend free mini workshops throughout the weekend, browse educational displays and take home pamphlets on the care and culture of cacti and succulents.

The weekend also will feature a plant competition judged by experts in the field. Visitors can view the prize-winning plants and vote for their favorite entries. Those interested in entering the competition should bring their plants to DBG's John C. Mitchell II Hall the afternoon or evening of March 27. The deadline is 7 p.m. For information regarding the competition, call Harriet Olds, 989-6998, or Steve Crosse, 657-8784.

Visitors also will find books, mugs, T-shirts, potting soil and containers for sale. They can select plants for a dish garden and have the experts on-hand plant them. Winners of door prizes will be announced every hour.

The event is from 9 a.m. to 5 p.m. each day in Mitchell Hall and is included with admission to the Gardens (free to members). Don't miss this once-a-year event. For information call 370-8187.

Volunteer for Plant Sale this May

More than 1,200 volunteers are needed to work DBG's annual Plant and Book Sale May 7 to 9. While many plant-related and book division positions are full, volunteers still are needed in positions of customer service, cashier and tally work, along with many other jobs. Volunteers do not have to be knowledgeable about plants to help. To be a part of the nation's largest volunteer-run plant sale, call 331-4011. (Due to the volume of calls received, calls may not be returned immediately, but will be returned as quickly as possible.)

Supporting members help DBG grow

Supporting members—those at the Circa Botanica, Four Seasons, Perennial Partners, Conservator's Society and Botanist Club levels—show a high degree of commitment to Denver Botanic Gardens. Because of their generous support, DBG's gardens and programs can continue to blossom.

Funds raised from these supporting levels of membership go toward ensuring that DBG's horticulture displays are beautiful, educational and well designed; providing assistance to the research program's goals of studying and preserving rare and endangered plants; increasing the quality and quantity of our education programs for children, adults and teachers; and in general, enhancing each visitor's experience and appreciation of DBG.

In return, each level of membership receives increasingly valuable benefits, including complimentary concert tickets, invitations to special receptions and discounts at many favorite local businesses.

Supporting memberships begin at \$120 for the Botanist Club level and go up to \$2,500 or more for the recently introduced Circa Botanica level. If you would like information on becoming a supporting member, call director of development and membership Jennifer Darling, 370-8027.

Companies align with the Gardens

Becoming a Denver Botanic Gardens Corporate Partner has given many area companies the opportunity to support DBG programs, which in turn enhances our community's quality of life. Companies know that a positive quality of life is invaluable for their business and brings positive benefits to their employees and customers.

DBG's Corporate Partners also find numerous opportunities to show their support of the Gardens to their employees and customers through the benefits they receive—family admission passes to the Gardens and its special events, facility rental for company events, recognition on a new donor wall soon to be erected in DBG's lobby court and more, depending upon the level chosen.

Join our current Corporate Partners, and help us continue to enhance our community's quality of life. For a list of Corporate Partner benefits or for information call Anita Livingston, 370-8185.

New supporters

Denver Botanic Gardens thanks those Corporate Partner, Circa Botanica, Four Seasons, Perennial Partners, Conservator's Society and Botanist Club members who began or renewed their memberships during the fourth quarter of 1997.

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Mr. & Mrs. Charles L. Warren
Mr. & Mrs. Cliff Weinberger Mr. & Mrs. Warren A. White Mr. & Mrs. Joseph L. Wilcox Mrs. Barbara S. Williams & Mr. George L. Williams

Mr. & Mrs. Robert Williams Ms. Jane Wilson Mr. & Mrs. Jim Winget III

Mr. & Mrs. Jerry Williams

Ms. Rachel Williams

Mrs. Beryla Branson Wolf & Mr. Phillip C. Wolf Dr. & Mrs. Bob Wolfe

Mr. & Mrs. Russell Wood Ms. M. Jeanne Zaighum & Mr. Giles M. Armstrong

Mr. & Mrs. Robert Zinn

Employee of the month

Pauline Donohue, secretary to the executive director, was voted by her co-workers as January's employee of the month. Pauline was recognized for her commitment to the Gardens, consistently doing whatever it takes to get a job done, despite constant interruptions and changing priorities. While doing this, she always takes care to present a professional image of DBG to others. She consistently goes out of her way to respond to inquiries personally and quickly, instead of letting someone else resolve them later. She is an excellent representative and ambassador for DBG.

Tour coast to coast with the Gardens



As a Denver Botanic Gardens member, you are invited to explore the San Juan Islands in the Puget Sound off the coast of Washington state on an upcoming DBG trip, "Northwest Passages," July 11 to 18. Cycling,

hiking and sea kayaking will allow you to fully appreciate the beauty of San Juan, Lopez and Orcas islands. You'll explore forest trails and quiet coves in search of deer, orcas, eagles and wildflowers, and visit the state parks and quaint towns that make this area a favorite get-away.

Trip highlights will include whale watching off Lime Kiln Park; wildlife viewing at Shark Reef; beachcombing at Spencer Spit State Park; hiking Mt. Constitution for views of the Gulf Islands, Olympic and Cascade ranges; visiting shops and museums; and touring Butchart Gardens on Vancouver Island in Canada.

Cost is \$1,595 and includes lodging, all land and ferry transport, activities, most meals, equipment rental, guiding services and special receptions. Reservations must be made by April 1.

If the east coast is more your style, consider signing up for a tour of Maine, "The Maine Event," Aug. 3 to 9. Your Maine coast experience will include craggy shores, deep evergreen coastlines, vibrant blue waters and "down-east" history and charm. The tour will begin in Portland with a historical perspective, but will focus on the island of Mt. Desert, home to Acadia National Park, Rockefeller Gardens, Azalea and Thuya Gardens.

Other highlights include visiting private gardens on Mt. Desert and Islesboro Island; touring the Penobscot and Wendall Gilley museums; visiting Acadia National Park, Cadillac Mountain, the Wild Gardens and Abbe Museum; and bird and wildlife watching at Scarburough Marsh.

Cost is \$1,295 and includes lodging, all ground and ferry transportation, most meals, activities, entrance fees and special receptions. Reservations must be made by May 1.

Other upcoming trips include a "Wildflower Foray" in Steamboat Springs July 24 to 27 (wait list only); an "Indonesian Odyssey" Sept. 11 to 27; and "Grand Canyon Rambler" Oct. 18 to 23. For more information or to register, check the insert from your December *Green Thumb News* or call 370-8051.

DBG's herbarium—a botanical library

Many visitors to Denver Botanic Gardens' Kathryn Kalmbach Herbarium expect to find a collection of living culinary and medicinal herbs. Although the herbarium contains many of these plants, it is actually a collection of nonliving, dried and pressed plant specimens of all kinds—a botanical library. The specimens are pasted on large cards and arranged in library stacks in alphabetical order according to plant family and scientific name.

An herbarium is a place to identify plants, to find where they grow and to record their habitats. It is the physical basis for what one reads in books about plants. If the plants become extinct, this is the permanent record of their former existence.

A herbarium does three things for plant science. First, it maintains a record of the kinds of plants in the world. Second, it provides the records for geographical distribution of plant species. Finally, it provides an idea of the amount and kind of variation within a species. It is a reference library of plants from which a student or research scientist may find out what kinds of plants grow in certain areas and where and how they will appear.

The Kathryn Kalmbach Herbarium was created and maintained for more than 50 years entirely by volunteers. At present, 12 volunteers work in the herbarium. In 1995 Dr. Janet Wingate was appointed herbarium manager (the herbarium's first paid position). It contains more than 31,000 specimens and continues to grow through collections by the herbarium staff and DBG members, exchanges with other herbaria and gift collections.

The herbarium is located on the second floor of the education building above Helen Fowler Library. It is open to the public on Tuesdays from 10 a.m. to 3 p.m. or by appointment. During that time the staff is available to assist in plant identification and plant related questions. Be sure to visit on your next trip to the Gardens!

Join African violet club

The Ultra Violet African Violet Club will sponsor a program at Denver Botanic Gardens' Morrison Horticultural Demonstration Center, "Insects and Diseases of African Violets," Monday, March 23, at 9:30 a.m. Basic care and culture of African violets will be discussed. Anyone joining the club will receive a free African violet. A meeting and refreshments will follow the program. Guests are welcome. For more information call 429-2730 or 697-5905.

Tributes

In memory of Frances Dovle Rice Mr. and Mrs. Harry B. Doyle Jr. Mr. and Mrs. Robert Evans In memory of Mrs. Katherine Otto

Dr. and Mrs. Eugene Moore

John and Debbie Moore

In honor of Robert H. Johnson

Chelsey Baker Mike Hauck

In memory of Paul Swalm

Mr. and Mrs. William B. Collister

In memory of Mr. Kim Sterne Mr. Bruce C. Steme

In memory of Ada M. Smith

Betty Ann Burick

In honor of Barbara Vucich and Gerald Bennington

Richard A. Petke

Carol L. Bennington

Birthdays...Anniversaries...Memorials...

You can make a contribution to the Gardens in memory or in honor of someone you love. It's a thoughtful tribute and a helpful gift to our institution. Please call (303) 370-8055 for more information.

Honor or remember family, friends or loved ones and help the Sardens grow in their name.



A birthday, anniversary or special acknowledgment makes a beautiful tribute.



Please complete the enclosed envelope and mail it today.

Come fly with us

It is time to sign up for DBG's fourth annual BirdHaus competition. Test your originality, whimsy, craftsmanship, functionality, practicality and/or humor. Build a birdhouse or bird feeder to help make our resident robins happy. Deadline for registering to enter a structure is May 8. The fabricated birdhouse or feeder entries are due June 8, then they will be displayed at the Gardens June 26 to July 12. All entries are donated to DBG and auctioned at a BirdHaus Bash Preview Party June 25 at 5:30 p.m. The competition is open to everyone—all ages, individuals and teams.

A flock of volunteer opportunities also are available to help plan, set up and work during the BirdHaus Bash. For an entry form or information on helping at this fun event, call 370-8021.

From your membership office

Check us out behind-the-scenes!

Members at the Arbor Circle level and above are invited to an exciting look into DBG's production greenhouse areas Wednesday, April 8. Greenhouse staff and volunteers will offer tours at 5:30 and 6:30 p.m. Reservations are required and space is limited. Call 370-8018 by April 1.

Fee increase planned

Fees for three levels of membership will be increased starting May 1. Each level was last increased in 1986. The new rates will be Gardener level, \$30; Landscaper level, \$40; and Arbor Circle level, \$55. There will be no rate changes for higher levels of membership.

Members who would like to pay for their 1998-99 membership in advance of the rate increase are welcome to do so. These memberships will be extended a year beyond the current expiration. For more information call the membership office, 370-8029.

Plant Sale is coming!

Again this year, members will be able to enter the Plant and Book Sale May 8 and 9 at 8:30 a.m.—1 1/2 hours before the public. However, this year only one person per membership card will be admitted early, with the following exceptions: seniors needing assistance and physically challenged persons may bring one companion to assist them. As always, DBG will be selling and renewing memberships outside the gates beginning at 8 a.m. each day.

Save the date for preview party

Take advantage of being the first to buy your favorites of new, unique and tried-and-true plants at DBG's annual Plant Sale Preview Party May 7. Watch April's Green Thumb News for details and registration information.

Changes in membership tax deductions

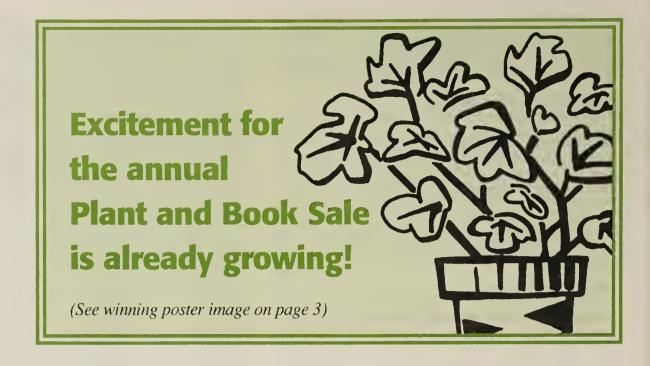
Members, please note: the Fair Market Value (FMV) for 1997 upper-level memberships has been recalculated. The FMV for the three lowest membership levels remains unchanged.

To determine your tax deductible amount, subtract the 1997 FMV from the total amount you paid for your membership in 1997:

Membership level	air Market Value	Deductible Amount (if you paid the full amount)
Gardener (\$25)	\$8	\$17
Landscaper (\$35)	\$8	\$27
Arbor Circle (\$50)	\$8	\$42
Botanist Club (\$120)	\$72	\$48
Conservator's Society (\$2	240) \$136	\$104
Perennial Partners (\$500)	\$246	\$254

March

March							
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1	2	3	4	5	6	7	
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15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30	31					
April							
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5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30			



Denver Botanic Gardens

909 York Street Denver, Colorado 80206-3799

Address service requested

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March

- 1 Denver Orchid Society Spring Show & Sale
- 2 Naturalist Guide Training
- Waves of Flowers, Foliage and Fragrance Rocky Mountain Bonsai Society meeting
- 4 Designing a Perennial Border Perennial Advantage: Intermediate Level
- 5 Intermediate Bonsai: A Maple Grove Healing Herbal Teas
- 6 Free Day & Drop-in Tour at Chatfield Arboretum Beyond Phalaenopsis
- 7 Herbal Bath Oils, Salts, Sachets & Lotions Your First Water Garden: Small Containers Gloxinia Gesneriad Growers Society meeting
- 7, 8 Incredible Edibles: Luscious Legumes
- 9 Colorado Mycological Society meeting
- 10 The Culinary Garden
 Beginning Botanical Acrylics
 Colorado Cactus & Succulent Society meeting
- 12 Never Fail Perennials
 Horticultural Therapy Techniques
 Denver Rose Society meeting
- 14 Denver Rose Society Rose Symposium

 Natural Spring Cleaning

 Principles of Pruning

 High Country Judges workshop

 Rocky Mountain African Violet Council meeting
 Rocky Mountain Orchid Judging Center meeting
- 15 Mile High Daylily Society meeting
- 17 Rocky Mountain Bonsai Society workshop

- 18 Basic Herb Cookery
 Miniature Roses
 North American Rock Garden Society meeting
 Herb Society of America meeting
- 19 Organic Gardening PrinciplesAfrican Violet Society of Denver meeting
- 21 Water Gardening for Beginners High Country Judges workshop
- 21, 22 Rocky Mountain African Violet Council Spring Show & Sale
- 23 The Western Garden
 Ultra Violet Club meeting
- 24 *Herb Wreath Thyme*Colorado Native Plant Society meeting
- 25 Bonfils-Stanton Lecture: John Greenlee The Lawn-Free Front Yard
- 26 Intermediate Bonsai: An Italian Stone Pine Forest Birds & Berries: Landscaping for Wildlife Ikebana International meeting
- 28 How to Train your Grapevine
 How to Grow and Make a Wreath
 Rocky Mountain Bonsai Society workshop
- 28, 29 Colorado Cactus & Succulent Society Show & Sale
- 29 Homestyle Tinctures
- 30 Cacti and Other Succulents for Beginners
- 31 Container Herb Gardening Composting: Recycling the Refuse



Green Thumb News



Denver Botanic Gardens

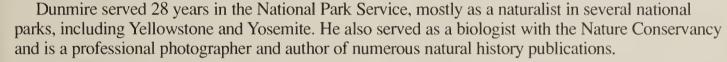
April 1998

Native plants and people of the Four Corners region

The popularity of ecotravel (travel with the intent to explore the unique ecological and historical attributes of a location) has spawned a whole new genre of natural history writing. On Saturday, May 2 at 9 a.m., authors Gail Tierney and Bill Dunmire will visit the Gardens to present "Wild Plants and Native People of the Four Corners Region," a talk which connects the Southwestern landscape and ecology to past and present peoples.

Tierney and Dunmire's books and talks reflect their respect and appreciation for the land, plants and people that have occupied the Four Corners region through the ages. In their talk and discovery walk of the Gardens' grounds (following their presentation), they capture the heart of native life and landscape of the Southwest and emphasize the importance of plants in native

cultures, both current and past. They will also detail how the native peoples' culture and existence has been shaped by the food, medicine and dyes provided by their landscape.



Tierney has worked for the Laboratory of Anthropology, Museum of New Mexico, Los Alamos National Laboratory and several other technical and teaching institutions in New Mexico. As author and co-author, she has received awards for excellence in writing "readable science."

Tierney and Dunmire have had previous success when teamed up together on writing projects, winning the Southwest Book Award for *Wild Plants of the Pueblo Province*. Both authors will be available following the lecture to sign copies of their books, available in the Gardens' Gift Shop

Pre-registration for the 9 a.m. lecture and the 11 a.m. or 1 p.m. plant discovery walk of Denver Botanic Gardens is recommended. The cost is \$8 for members and \$9 for nonmembers. Please call 370-8020 to register.



Tierney and Dunmire



Dawn Chorus celebration

Spring is in the air, the days are getting longer and the melodic spring songs from winter quiet birds are now in full tune. Feel like celebrating? On Sunday, May 3, join nature lovers around the world as they herald in the new season with bird songs. Dawn Chorus is an international day of appreciation for birds and all that they bring to our lives. This event started 13 years ago in England, and its popularity has spread worldwide to countries such as Spain, Kenya, Israel and Russia. This will be Colorado's sixth annual Dawn Chorus Celebration, sponsored by Colorado Urban Wildlife Partnership.

Chatfield Arboretum is one of 16 Colorado sites that will offer guided Dawn Chorus tours by naturalists and volunteers. No experi-

ence is necessary; simply bring your love of nature and a pair of binoculars (if you have them). The walk will begin at 6 a.m. and will end at approximately 8 a.m. There is no cost to participate, although you are required to pre-register by calling DBG's education office at 370-8020. For more information call Sue Boersma, 973-3705.

Green Thumb News April 1998

Published monthly by Denver Botanic Gardens' Marketing and Special Events Dept., 909 York St., Denver, CO 80206 Edited by Julie Behrens Horticulture editor: Ken Slump Deadline for June issue: April 17

Getting in touch with	DBG
General information	331-4000
TDD	370-8032
Dr. Green plant information	370-8068
Tues. and Thurs., 1 to 3 p.m.	
Gift Shop	331-4009
9:30 a.m 4:30 p.m.	
Helen Fowler Library	370-8014
Sun. through Sat., 9 a.m. to 3	5 p.m.

Offices

Mon. through Fri., 8 a.m. to 5 p.m.

Closed major holidays.

Class registration	370-8020
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Media relations	370-8033
Membership services	370-8029
Plant society meetings	370-8097
Security, emergencies	370-8017
Special events information	370-8187
Tribute gifts	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705

Chatfield Arboretum

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc. for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

From the executive director

DBG continues to raise standards

Thanks to the dozens of donors who made large and small contributions alike, all the projects funded by the Capital Fund Drive are either completed, are well underway, or are in the final design stages. This fund drive has led to the largest single group of improvement projects ever undertaken by the Gardens.

We have had a history of excellent design work being done at the Gardens, and the trustees have continued to show their commitment to excellence by partnering with the best architects, landscape architects and garden designers. But we have gone one step beyond this, beyond what any other botanic garden in the world has done, to ensure we keep raising the standards.

With the advice and leadership of trustee Jocelyn Childs, we created a Design Review Committee to advise us and work with designers on major projects. This committee consists of two renowned architects, John Anderson and Rich von Luhrtre, and two equally outstanding landscape architects, Lois Brink and Laurel Raines. These four exceptional professionals review every project's design, beginning at the conceptual stage and meet with the designers throughout the project development cycle to ensure integration of their concepts.

In many cases, the changes they suggest are subtle - a paving change, a wall texture change, realignment of a path. But these changes have made remarkable differences in the quality of the designs. For example, this committee suggested that we take the "tulip lights" in the Conservatory and relocate them into the front entrance and up the stairs to the new parking area. This has created a much more dramatic entry and transition from the parking area into the Gardens.

As you enjoy the new features, please note that their excellence is in no small measure due to the careful attention to design detail that we gain from these four designers. Each is an acknowledged leader, and together, the team provides amazingly effective contributions toward creating the most beautiful botanic garden possible. We all owe them and Jocelyn Childs, who championed this idea, a debt of gratitude.

> Richard H. Daley Executive Director



IMPROVEMENT PROJECTS UPDATE

The winter's renovation projects continue to progress in preparation for the upcoming spring season. Landscaping of the new and expanded main parking lot is underway and will soon be ready to welcome Gardens' visitors. The Romantic Gardens construction is going smoothly as well. The waterway, lily pool, blockwork and pathways have all taken shape and the horticulturists are planning for May planting.

If you have a chance to peek into the Conservatory viewing window, located off the Lobby Court, you'll see that renovation is in full swing. The retaining walls and foundations are being completed and the underground utilities, mechanical systems and piping components have been installed. The pathwork frame will also be installed this month, outlining the future walking space within the Conservatory.

New board members

Denver Botanic Gardens' Board of Trustees recently appointed four new members to the 1997 board: Mrs. Susie Mammel, a travel professional who has served on boards of Museo de las America, the University of Denver Art Department, and Friends of Painting and Sculpture at the Denver Art Museum; Mrs. Merrilyn Leuthold, director of public relations and development at the Cleo Wallace Centers. Merrilyn has served on the boards of The Park People, Junior League of Denver, the Association of Junior Leagues International and Historic Denver; Mr. John McLagan, who owns his own marketing company, has served on the DBG marketing committee for the last two years and also currently serves as the vice president of the Denver Rotary Club Foundation; and Mrs. Barbara Maes, a local attorney who previously served as a Mayoral appointee on the board, has now been elected as a term trustee this year.

The board also elected its 1998 officers. Mr. John B. Proffitt will continue as president, and Mr. Charles W. Cleworth was appointed president elect. Other officers for the year are Mrs. Charles C. Gates, vice president; Mrs. John D. Woods, vice president; Mr. Walter D. Lowry, treasurer; Mr. Harold R. Logan Jr., assistant treasurer; Mrs. Barbara G. Maes, assistant treasurer; Mrs. Walter C. Emery, secretary; and Mr. D. Deane Hall Jr., assistant secretary.

Sages for every garden

A Book of Salvias: Sages for Every Garden, by Betsy Clebsch, noted amateur botanist and horticulturist, is the first book devoted to these members of the mint family. On Wednesday, April 22 at 10 a.m. and repeated again at 7 p.m., Clebsch will present the third talk in Denver Botanic Gardens' Bonfils-Stanton Lecture Series, and will highlight the diversity of salvias fragrance, bloom habit and color.

Salvias are often praised for possessing the truest blues and the brightest reds of any group of plants. Many are also drought tolerant and relatively disease-free. As ornamental garden plants, these colorful American natives are considered a mainstay of the English garden, yet adapt wonderfully to our region. From fragrant foliage, mints and sages, to showy border plants with true blues, pinks and reds, there are salvias for every garden and gardener. The fragrant foliage of many salvias has been used for centuries to heal the mind and body. Their striking flowers also serve as a major nectar source for hummingbirds.

Clebsch has a two-acre garden which houses hundreds of salvias, and has traveled with Yucca Do Nursery on plant-hunting and seed-collecting jaunts. She has participated in seed and rare plant exchanges, particularly with salvias, with many botanical gardens.

Lectures will begin promptly at 10 a.m. and 7 p.m. at Mitchell Hall. Please join us from 6 to 7 p.m. to visit the Helen Fowler Library. Clebsch will be available following her presentation to autograph copies of her book, available through the Gardens' Gift Shop. The lecture is \$8 for members, and nonmembers are welcome at \$12. Please call the education office at 370-8020 to register.

Begun in 1987, the Bonfils-Stanton Lecture Series is named in honor of the Bonfils-Stanton Foundation whose generous support makes it possible to bring renowned speakers from across the country to the Gardens.

Goliath guides needed

Guides are still needed to lead summer tours along the spectacular M. Walter Pesman Trail on Mt. Goliath. New guide training begins May 5th from 9 a.m. to noon and will be held for three Tuesdays, until May 26 ending with a training field trip to Mt. Goliath on Tuesday, June 16. The trail is a winding 1.5-mile downhill path that begins at 12,100 feet and ends in an ancient stand of windswept Bristlecone pines.

Previous tour guides interested in leading tours again this summer are asked to attend the May 19 and 26 training sessions.

After training, you'll be asked to guide two tours during the summer. There is a \$10 materials fee to cover the cost of handouts. For more information, please contact Lynn Blair at 861-7513.

Community Gardens update

When you're out walking this month, looking for signs of spring, stop by DBG's Community Garden. Last fall community gardeners planted hundreds of spring flowering bulbs. The Waring Garden (located at York and 11th streets just north of the library), in particular, should have a great display because of recent renovation.

This year, children visiting DBG can do their very own gardening in a special area of the Morrison Community Garden. Mr. McGregor's Garden, bordering the main parking lot, is being designed for kids to plant and pick vegetables and flowers. The area will be open on Saturdays and Sundays during regular community gardens' hours starting May 2. School or group tours during the week can also be arranged by contacting Selina Rossiter at 370-8042. Bring your family and neighborhood children to experience gardening first hand!

The Community Gardens opened on March 28 and will be open every day from dawn to dusk. April hours are 6 a.m. to 8 p.m.

"Green" energy

For the first time ever, Coloradans can have "green" energy—not the kind from our botanical friends, but rather from wind-generated electricity.

Public Service Company of Colorado is building the state's first wind "farm." Carefully sited in northeastern Colorado, the farm will generate 10 megawatts of power. The facility is under construction on a cattle ranch located near the Colorado-Wyoming state line between Interstate 25 and U.S. Highway 85. This site was selected because of the steady and strong winds and because the location is environmentally appropriate for wind energy development.

Because the landscape is not conducive to bird habitats, the project is expected to have minimal, if any, effect on birds—the primary environmental concern with wind development. In addition, the farm won't disturb the site's current residents—cattle operations can continue on about 95 percent of the land once the facility is complete.

More than 4,500 Coloradans, including Governor Roy Romer, have signed up for windgenerated electricity through Public Service Company's Windsource product. Some of the state's largest and most powerful energy consumers have also committed to Windsource including Coors Brewing Co., US West, CF&I Steel, IBM and the City and County of Denver.

For more information on Windsource, call Public Service Company at 571-3434 in metro Denver or 1-800-894-3368 outside Denver.





The Easter lily, or Lilium longiflorum, has become recognized as a symbol of Easter.

Easter lily care

The plant we call the Easter lily, known botanically as *Lilium longiflorum*, is native to the islands of southern Japan. The most popular cultivar grown for greenhouse production is "Nellie White," named by lily grower James White in honor of his wife.

When shopping for a lily, choose a plant with buds and flowers in various stages of maturity. Removing the yellow anthers as the flowers open is said to impart longer flower life, but their color certainly adds sparkle to the pristine blossoms. The foliage should be a dark, rich green and cover the stem all the way to the soil line.

Easter lilies will last longest in the home if kept in a fairly cool location. Daytime temperatures ranging from 60° to 65° F are ideal, with slightly cooler temperatures at night. Avoid exposure to excessive heat or dry air from appliances, fireplaces and heating ducts. The plants prefer bright, indirect light.

When the soil surface feels dry to a light touch, it's time to water the plant thoroughly. Apply water so that it seeps from the pot's drainage holes, but don't leave the pot standing in water. It's easiest to remove the plant from any decorative foil or cachepot and take it to the sink for watering; let it drain a few minutes before placing it back in its decorative cover.

Remove each blossom as it fades. After the last has withered, you can continue growing the plant in a sunny indoor location to eventually plant outside in your garden for flowers in years to come. After the danger of frost has passed, plant the lily in a well-drained soil that is rich in organic matter. Three inches of soil should cover the top of the bulb. Spread the roots as best you can.

Cut the original plant to the soil line as it begins to die back. Soon new growth will emerge. You may have a second flowering yet this season, but more likely the forced bulbs will not bloom again until the following summer. Easter lilies grown outdoors normally flower in June or July. Lilies thrive with their "roots in the shade and heads in the sun" and appreciate the soil moisture and temperature benefits of a good mulch.



Alcantarea imperialis

Belonging to the bromeliad family, this wonderful plant justly deserves its name. It is a native of the Organ Mountains in the state of Rio De Janeiro, Brazil, where it lives on barren, rocky slopes at an elevation of 4,500 feet. It enjoys basking in the warm sun of the day and having cool temperatures at night. Alcantarea imperialis is one of the larger plants in the family.

The beautifully symmetrical rosette has leaves measuring 6 inches in width and 5 feet in length, and when given good light they turn rich maroon. The imposing branched flower structure may reach a height of 6 feet or more. The yellowish, slightly fragrant flowers measure up to 6 inches long and emerge from glossy deep red bracts. This gorgeous plant will make a bold accent in any spot it is planted, and it will be featured in DBG's renovated tropical conservatory when it reopens in 1998.

Gary Davis Greenhouse Supervisor



Alcantarea imperialis. *Illustrated by Jayme S. Irvin.*



Denver Botanic Gardens 1998 Plant & Book Sale

Save Friday and Saturday, May 8 and 9, for the ultimate garden shopping experience. More than a quarter-million new and unusual plants, as well as the tried and true, will tempt both novice and experienced gardeners at DBG's 49th annual Plant and Book Sale at 1005 York St. The sale will be open to the general public on Friday and Saturday from 10 a.m. until 5 p.m. Members, seniors and physically challenged people are invited to shop early from 8:30 to 10 a.m. on both days. Seniors and physically challenged visitors may bring one guest to assist them, however, all members will be limited to one person per membership card.

You are also invited to be among the first to purchase plants at the "World of Flowers" Preview Party, on Thursday, May 7. (please see invitation on back of this page). Tickets must be purchased in advance.

DBG closed Thurs., May 7, for sale preparation



Preview Party
Thursday, May 7 at 5:30 p.m.



Plant sale hours
Friday and Saturday, May 8 and 9
Members/seniors shop early
8:30 to 10 a.m

Open to general public 10 a.m to 5 p.m.



Free admission



Free off-site parking, free shuttle



More than 250,000 plants



Thousands of books



Mother's Day gifts

Membership benefits

All members will receive a 10% discount on purchases. One member per membership card will be allowed to shop during the member's early shopping time from 8:30 to 10 a.m. on Friday and Saturday. New memberships and renewals will be sold at all entrance gates.

Parking

Since parking is limited at the Gardens, plan on riding the shuttle bus. It's easy! Simply park your car at the Target store in Glendale, 4301 E. Virginia Ave., and enjoy a free bus ride to the sale. Rid yourself of the driving and traffic congestion.

Check-outs and plant valets

Check-outs will be located on the north and south sides of the Gardens. New this year will be an express check-out for 10 items or less at the York Street entrance. To enhance your shopping experience, take advantage of the plant valets. After making your purchase, leave your plants with the plant valet, take the shuttle bus back to your car, and return to the curb where valets will load your purchases. Plant valets will be located on 11th Avenue on the north and York Street for the south check-out. Please note that only a limited number of grocery carts will be available. If you intend to make more than a few purchases, you may want to bring a

Books

Thousands of books, magazines, compact discs, records and videocassettes will be for sale in the downstairs classrooms of the education building. Cookbooks, gardening manuals, suspense novels and children's subjects will be available for a fraction of their original cost. Proceeds from the book sale are used to purchase new books for the botanical and horticultural collection of Helen Fowler Library.

Mother's Day Gifts

You'll find gifts galore for Mom at this year's sale! Hanging plant baskets, last year's best seller, will be available in the Patio Basket division. Also, Mitchell Hall, inside the education building, will be devoted to gifts! There will be a delightful selection of bonsai, lilies in bloom, terrariums, cactus dish gardens, orchids and bromeliads. To dress up your purchase there will be a limited selection of decorative containers, fancy sleeves and bows.

T-shirts and posters

Official plant sale T-shirts and posters will be available for purchase. This year's poster will feature a painting by John Lencicki that captures the recovering beauty of DBG's water gardens just weeks after last summer's hail storm. Past years posters will also be available.

Volunteer opportunities

If you would like to volunteer to work the sale for either set up before the sale or the sale itself, please call 331-4011. Because of the large volume of calls received, your call may not be returned immediately but will be returned as quickly as possible.

Shopping tips

Bring your own boxes to use with a shopping cart or to take the place of a cart.

A luggage cart, a stack of two or three plastic storage bins and two long bungy cords make an excellent conveyance for precious plants and garden goods.

Sale changes

Due to construction, there has been a decrease in the amount of sales space north of the tropical conservatory. Therefore, the Trees and Shrubs division has been discontinued for this year. However, small shrubs will be available in the Plant Select® division. Containers and houseplants have merged into one division and can be found in Mitchell Hall.

'Garden Grown' treasures

The Garden Grown division is the best place for bargains! This area of the sale features plants donated to the Gardens by local gardeners, then potted up and labeled by volunteers.

Volunteers are needed during the month of April on Tuesdays and Thursdays from 9, a.m. to noon to help pot up plants. Plant donations can be dropped off at the Gaylord Street gate just north of the Gardens. For information call Pat Miller, 232-6564, or Marilyn Moore, 388-6934.

Plant Select®

Plant Select, back for its second year at the sale, will feature plants that have been selected by DBG and C.S.U. as having superior garden merit for the Rocky Mountain region. This year's selections will include all of the 1997 and 1998 Plant Select plants.

Gardeners who are particularly interested in these plants may be interested in learning more about the Plant Select Evaluation Program. This new program will enable its members to experiment with new, untested plants and supply their comments to the Plant Select propagation committee. Three-year memberships will be for sale for \$50 in the PlantSelect plant area and entitle members to receive program mailings and to buy evaluation plants, trees and shrubs, at low cost.

Vegetable cornucopia

The Vegetable division has been expanded significantly for 1998. More of all the favorite vegetables and many new selections will be available—sale organizers promise vegetable plants won't sell out before the end of the sale this year. New to the sale will be more than 60 varieties of Shepherd's vegetable seeds, highly recommended by the DBG staff for the Denver area. If you can't wait for the sale, buy your seeds now in the Gift Shop.

Perennial profusion

This year's sale will offer a rich selection of perennials for all kinds of gardens. There will be a large selection of shade/part shade loving plants sun lovers, sun lovers, flowering vines and ornamental grasses. All plants will be sold in 4-inch containers.

A World of Flowers Preview Party

Denver Botanic Gardens
Plant and Book Sale

Thursday, May 7, 1998 5:30 to 8:30 p.m. 1005 York Street

\$50 per person





















\$100 Patrón level

Patron ticket holders will enjoy special reserved parking and early admittance for Preview Party shopping at 4:30 p.m. On April 30, a VIP cocktail reception and a private Gardens tour will be held at 5:30 p.m. at the Botanic Gardens House.

Advance reservations required by April 30

Receive a \$5 discount on plant purchases of more than \$75

at Preview Party only! Members receive an additional 10% off purchases.

Mother's Day gifts and indoor plants will be available in Mitchell Hall, and a selection of special books will be for sale in the lobby of the education building.



For more information about the Plant & Book Sale call 303-370-8091. Denver Botanic Gardens, 1005 York St., Denver, CO 80206

How did a Japanese lily become a revered symbol of the Easter season?

The white lily depicted in most Christian religious art of Europe is in most cases the Ascension or Madonna lily, *Lilium candidum*. This lily was the first to represent the Virgin Mary and decorate the church alters throughout Europe. The Easter lily (*Lilium longiflorum*) has a briefer religious history, but it is seen in such quantities it has almost replaced the Madonna lily as a Christian symbol.

The Easter lily is native to the semi-tropical Ryukyu Islands of Japan, of which Okinawa is the main island. In its native habitat, the lily grows near the seashore in lime soil. In Japan it is revered as a beautiful garden plant and was even mentioned in the first recognized Japanese gardening book, written in 1681. It is also traditionally planted at grave sites in Japan.

First discovered by the western world in 1794, it wasn't until 1819 that the Easter lily was introduced to England. The lily gained more global acceptance as it was introduced to Bermuda in 1853 by an English missionary who was stranded there on his way home. He gave some bulbs to a church rector who grew them and thus started the lilies' spread throughout Bermuda. Like their native habitat in Japan, Bermuda has lime soils.

In 1876, the lily was introduced to a nurseryman in Philadelphia. He saw their potential as a potted plant and cut flower, and the Easter lily industry was born. Their semi-tropical origin and the ability to force the bloom independent of seasons lent itself well to greenhouse conditions making cultivation of the lily possible on a broader scale.

Originally most Easter lilies came from Bermuda. In 1903, three million bulbs were imported from Bermuda to the United States. Since then, Bermuda trade has diminished substantially because of virus problems in the plants. In the United States, however, the industry continues to boom. Prior to World War II, lily bulbs were imported from Japan, but today the Pacific coast region along the borders of California and Oregon produces more than 95 percent of all the bulbs grown for the potted Easter lily market in the US.

Answers from Dr. Green

Here is a sample of the many questions received on DBG's Dr. Green plant information help line.

Q. How should I go about hiring a good tree care company?

A. Trees' physical size and the special equipment required to maintain them necessitate that most homeowners hire the services of tree care professionals for maintenance. Quality, professional arborist services are available from organizations ranging in size from one or two person "mom and pop" operations to large businesses employing dozens of individuals. Pricing for services can vary considerably so consumers are encouraged to get cost estimates and references from several firms. Tree companies offering insect and disease control services using pesticides must be licensed by the Colorado Department of Agriculture. You may contact the CDA at 303-239-4140 to verify licensing. A number of cities and communities have local ordinances requiring licensing of tree maintenance providers which may be verified with your local city forester or arborist. Some tree companies employ arborists which have passed tests and been certified by The International Society of Arboriculture. The Rocky Mountain Chapter of the ISA may be reached at 303-321-0985 for a list of their locally certified arborists.

Q. What can I do to protect trees, shrubs and garden plants that sprout and flower before the danger of frost and freezing temperatures has passed?

A. There is not a lot that you can do. Since the majority of our landscape plants are non-native, many are coaxed out of dormancy with the first warm days of spring, even though our average frost-free date isn't until the middle of May. Some perennials and bulbs will be more resistant to early sprouting if they're planted a bit deeper, and mulching flower beds can help keep the soil from warming early and encouraging growth too soon. Trees and shrubs usually have to take their knocks and the earliest spring flowering ones such as magnolia, apricot and forsythia are frequently nipped. Still, they have proven to be quite resilient in this region and even if their blossoms and first leaves are frozen, they form new buds and seem to come through none the worse for it.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m. at 370-8068. Or, leave a message anytime for a return call.

Sources for this article found in Helen K. Fowler Library are:

Baumann, Hellmut. *The Greek Plant World in Myth, Art and Literature*. Portland, Ore.: Timber Press, 1982 QK 83 .B38 1993

Beals, Katharine. *Flower Lore and Legend*. New York: Henry Holt & Co., 1917. QK 83 B435

Craig, William. *Lilies and Their Culture in North America*. Chicago: Florists' Publishing Co., 1928. SB 413 L7 C735

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Skinner, Charles M. *Myths and Legends of Flowers, Trees, Fruits, and Plants*. Philadelphia: J.B. Lippincott, 1939. QK 83 S555 1925

Synge, Patrick M. Lilies: A Revision of Elwes' Monograph of the Genus Lilium and its Supplements. New York: Universe Books, 1980. SB 413 L7 E483 1980



BirdHaus Bash '98 come fly with us!

Denver Botanic Gardens' fourth annual BirdHaus Competition.

Test your originality, whimsy, craftsmanship, functionality, practicality and humor. Help us make our resident robins happy! Register to enter by May 8.

Entry Form

Entry Title

No registration fee is required. I (we) understand the entry becomes the property of Denver Botanic Gardens. I (we) plan to submit one entry to the BirdHaus Competition and agree to comply with its published conditions and requirements.

Entry display	yed in the following way:		
Indoors:	🗆 on a pedestal	□ hanging	☐ self-supported
Outdoors:	🗆 on a pedestal	□ hanging	☐ self-supported
If they are to	be placed outdoors they mu	st be able to withstand	wind and weather!).
Vote: outdoor	entries are encouraged; they	r can be better displayee	d throughout the Gardens.
	entries are encouraged; they	r can be better displayee	l throughout the Gardens.
Name	entries are encouraged: they	can be better displayed	l throughout the Gardens.
Name Age:	☐ 12 and younger		l throughout the Gardens.
Name Age: Guardian (if	☐ 12 and younger		d throughout the Gardens.
Note: outdoor Name Age: Guardian (if Address City	☐ 12 and younger	□ Adult	d throughout the Gardens.

DENVER, CO 80206-3799 • FAX: 303-331-4039

For information, please call (303) 370-8021.

(III) UNITED AIRLINES

Rock alpine plant sale

Explore the cutting edge of gardening this year by visiting the North American Rock Garden Society's (Rocky Mountain chapter) annual sale on Saturday, April 18, in DBG's Mitchell Hall from 9 a.m. to 4:30 p.m.

More than a dozen Colorado plant growers will display thousands of choice alpines, perennials, dwarf conifers, seed-grown hardy cacti and groundcovers. Many new plant introductions will be available and the Society will include color photos of many of the plants in bloom to ensure that choice plants are not overlooked. Growers and experts will also be on-hand to answer questions and offer expert advice in choosing and planting trough container plants. There will also be a display on growing dwarf alpines. For more information, call Rod Haenni, 795-7597.

50 years of violets

Past and current members, as well as friends of the African Violet Society of Denver, Chapter 1, met February 8th to celebrate the club's 50th anniversary. Guests were treated to an Open House at the Botanic Gardens House, which was the original and long-used meeting site for the club. Memorabilia including the club's earliest minutes and bylaws, yearbooks, show schedules, publications and master variety lists were on display. Also featured were African violet plants and a watercolor drawing of the most recent hybridization breakthrough of the yellow blossomed African violet. Long-time member Becky Shoun created the illustration to mark the Golden Anniversary celebration.

Monthly club meetings are held on the fourth Thursday of the month at DBG. For information, contact Janice Sorenson at 220-8799

Wildflower week

This year "Celebrating Wildflowers" returns to DBG during the week of May 17 to May 23. Wildflower information displays from various plant conservation agencies, and information on wildflower identification hikes in the metro area will be available in the lobby court. A free coloring book will also feature plants from the ponderosa pine forests. Look for more the details in the May newsletter.

From your membership office

Mom gets special treatment

Now through Mother's Day, all gift memberships for Mom will include a certificate for a free box of floral note cards from Denver Botanic Gardens' Gift Shop (up to \$5 value). Give your mom the gift of year-long enjoyment and the opportunity to learn new things and meet new friends. This offer is good on both new and renewing gift memberships!

Membership rates going up

The Gardener, Landscaper and Arbor Circle membership rates will each increase \$5 after May 1. (This is the first increase in more than 10 years!) If you would like to renew your membership now at the current rates, your membership will be extended one year from the present expiration date. For fastest service, call 370-8029 with your Visa or MasterCard number.

Bring your membership card to the Plant and Book Sale

Please note that only one person per current membership card will be admitted early (from 8:30 to 10 a.m.) to Denver Botanic Gardens' Plant and Book Sale on Friday and Saturday, May 8 and 9. Seniors or physically challenged persons can shop early and may bring one assistant. Your card will give you a 10% discount on all your purchases. Memberships will be on sale early, outside the gates.

A sneak peek behind the scenes

Members at the Arbor Circle level and above are invited for an exciting look into DBG's production greenhouses Wednesday, April 8. Greenhouse staff and volunteers will offer tours at 5:30 and 6:30 p.m. Reservations are required. Please call 370-8018 by April 3.

Corporate Gifts

How to double or triple your gift to Denver Botanic Gardens

If you or your spouse work for a company that offers a matching gift program, your gift to DBG may be matched by your company. Company policies vary, allowing matching gifts to be made one-to-one, two-to-one, etc. What does this mean to you? For example: If you give \$50 to DBG and your company matches your donation one-to-one, your support could total \$100. Plus, through this increased, valuable support, you will maximize your impact on the growth of DBG as a center of innovation and discovery.

What to do next?

Contact your company today, and ask if they will match your gift to Denver Botanic Gardens! For more information, call 370-8185.

DBG is a 501(C)(3) organization, accredited by the American Association of Museums, and the sixth largest U.S. botanic garden!

Memorials & Tributes

In memory of Patty Lou Pate Mr. and Mrs. Wallin E. Foster, Jr. In honor of Ms. Whitney Speer Mr. Christopher Castiglia In memory of Carol Lea Hiller St. Anne's Episcopal School In honor of Carol Schutz Prue Grant In memory of Elizabeth Yates Prue Grant In memory of Douglas McHendrie Prue Grant In memory of Larry Strear's Mother Richard and Sandy Sanders In memory of Steve Weiner's Mother Richard and Sandy Sanders Happy Birthday to Steve Chotin Richard and Sandy Sanders In memory of Lynn Sheridan Jim and Bonnie Ludlow In memory of Eileen F. Freiberger Dudley C. Enov In memory of Erick M. Holland Dudley C. Enos In memory of Mary E. Hougland Dudley C. Enos In memory of Mary M. Morley Dudley C. Enos In memory of Jess A. Roybal Dudley C. Enos In memory of Benton E. Spencer In memory of Alice C. and Frances M. Villano Dudley C. Enos

Birthdays...Anniversaries...Memorials...

In memory of Liz Eichberg

Mr. and Mrs. Robert S. Appel

Mr. and Mrs. Anthony Ripley In honor of Lucile Downer

Women's Club of Aurora

In memory of Yvonne Russell

You can make a contribution to the Gardens in memory or in honor of someone you love. It's a thoughtful tribute and a helpful gift to our institution. Please call (303) 370-8055 for more information.



Explore the world with the Gardens

Denver Botanic Gardens has planned a world of trips this summer

and fall—sign up soon, while space is available. Discover the San Juan Islands off the coast of Washington state on the "Northwest Passages" trip July 11 to 18. View the beautiful mountains and flowers in Steamboat on the "Wildflower Foray" July 24 to 27 (wait-list only). Explore the craggy shores and deep evergreen coastlines of Maine on "The Maine Event," Aug. 3 to 9. Experience an "Indonesian Odyssey" Sept. 11 to 27. Journey to the South Rim, Havasu Canyon and Phantom Ranch, on the "Grand Canyon Rambler" Oct. 18 to 23. Other weekend camping outings are also being planned. For information or to register, call Pam Rathke, 370-8051.

Employee of the month

Susan Eubank, Sr. Librarian at DBG, is the March Employee of the Month. Susan has shown tremendous commitment to DBG and to providing excellent customer service. This was recently exemplified when she worked on the very busy Martin Luther King holiday which was also a free day. In addition to her regular librarian duties, she registered people for classes, signed up new members and provided visitor services such as finding wheelchairs and strollers. Susan truly went beyond the call of duty to ensure that visitors enjoyed their day at DBG.





Spring Fling

Early Garden Delights

Saturday & Sunday, April 4 & 5 - 9 a.m. to 5 p.m.







Get an early jump on spring with herbs, artichokes, asparagus and strawberry delights — from cooking to planting and even landscaping!

* free samples *kid's activities *educational exhibits *display & sales booths *For information call 370-8041. No reservation required. Entrance is free with gate admission.

Denver Botanic Gardens

909 York Street Denver, Colorado 80206-3799

Address service requested

Non-Profit Org.
U.S. Postage
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Denver, CO
Permit No. 205

April

- 1 Conifers for Colorado Gardens
- 1-5 DBG Trip to Arizona
- Free Day & Drop-in Tour at Chatfield Arboretum
- 4,5 * Incredible Edibles: Spring Fling
- 6 Free Day at York Street Water-Wise Flower Garden
- 8 Behind-the-Scenes Tour—Arbor Circle level members and above Wetlands: Rainforests of the West
- 11 Applied Plant Taxonomy
 Herb Topiaries
 The Rose Garden
 The Water Garden: Basic Pool Construction
 Papermaking with Iris Leaves
- 12 Herbal Weight Loss
- 13 Herbal Weight Loss
- 15 The Smaller Rock Garden
- Rocky Mountain Rock Garden Society Alpine Plant Sale Edible and Medicinal Plants
- 19 Basics of Growing Herbs Designing Your Herb Garden
- 21 Botanical Illustration: Mixed Media
- * Bonfils-Stanton Lecture: Sages for Every Garden
- 23 Nocturnal Adventures
- 25 Rocky Mountain Carnivorous Plant Society meeting
- 26 A Woman's Garden

May

- Free Day & Drop-in Tour at Chatfield Arboretum Sensory Tour Guide Training
- 2 Wild Plants and Native Peoples lecture
- 4 Free Day at York Street
- 7 York Street Gardens closed to public Plant and Book Sale Preview Party
- 8,9 Plant and Book Sale
- High Country Iris Society, Second Annual Early Flowering Iris Show
- 17-24 Celebrating Wildflowers Display
- 19-25 Denver Allied Arts Guild Show
- Denver Rose Society Old Garden Roses Display
- 30, 31 Iris Society Region 20 Show



^{*} Volunteers are needed. Call Dorothy Pate, 429-8602.

Green Thumb News



Denver Botanic Gardens

May 1998

Planttalk Colorado®

When should I plant my tomatoes? What's the best way to get rid of crab grass? What kind of garden can I grow in a small space? Answers to these and hundreds of other questions are available by calling Plant*talk* Colorado, a 24 hour toll-free automated phone service that provides reliable, timely information on a variety of horticulture topics.

Unveiled to the press and public on April 2, the new service is the result of a collaborative effort between Denver Botanic Gardens, Colorado State University Cooperative Extension and the Green Industries of Colorado. Because of Colorado's rapid population growth, all three organizations have seen a great increase in demand for localized gardening information. After many discussions, it was decided that this new, automated system would provide the most efficient and effective way to supply the public with quick, consistent and accurate information.

Plant*talk* currently provides information on over 200 specific topics. For more specific questions, callers can also request a live operator between 9 a.m. and 3 p.m. Monday through Friday. To access the system and for copies of the Plant*talk* brochure which lists the topics and how to access the telephone system, please call 1-888-666-3063.



Planttalk press conference



Plant and book sale is almost here!

Just a reminder that members can shop early before the public from 8:30 to 10 a.m. on

Friday, May 8 and Saturday, May 9. Seniors and the disabled will also be admitted early along with one assistant. Please bring your current membership card to gain early admission. New this year is one member per membership card regardless of membership level. Memberships will be sold at all entrances starting at 8:00 a.m. each day until 5 p.m. Take advantage of this opportunity to renew your expired membership or become a member, in order to take advantage of the many benefits offered.



Birdhouse alert!

It's time to start preparing your birdhouse or feeder for DBG's BirdHaus Bash and display June 25 through July 12. Help us make our resident wrens happy. Please register by May 8 and submit your entries by June 8. Also mark June 25, 5:30 p.m., on your calendar for the fourth annual BirdHaus Bash garden party and auction. Tickets are \$20 for adults and \$10 for children younger than 12. Please call 370-8021 for information or to make reservations.

Green Thumb News May 1998

Published monthly by Denver Botanic Gardens' Marketing and Special Events Dept., 909 York St., Denver, CO 80206 Edited by Julie Behrens Horticulture editor: Ken Slump Deadline for July issue: May 4

Getting in touch with DBG

General information	331-4000
TDD	370-8032
Dr. Green plant information	370-8068
Tues. and Thurs., 1 to 3 p.r	n.
Plant <i>talk</i> (24-hour) 1-88	8-666-3063
Gift Shop	331-4009
9:30 a.m 4:30 p.m.	
Helen Fowler Library	370-8014
Sun. through Sat., 9 a.m. to	5 p.m.
Closed major holidays.	

Offices

Class registration

Mon. through Fri., 8 a.m. to 5 p.m.

T-111100 1-0-11111011	
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Media relations	370-8033
Membership services	370-8029
Plant society meetings	370-8097
Security, emergencies	370-8017
Special events information	370-8187
Tribute gifts	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

From the executive director

During the last nine months, you have no doubt noticed the construction fence around the southeast section of the Gardens. As many of you know, this is the location of the much anticipated Romantic Gardens. During the May Plant and Book Sale you will get your first glimpse of this new garden as we will close down construction in that area to allow you to navigate the Gardens and to give you a glimpse of our progress.

What you will see are four spectacular gardens well on their way to completion. The Fragrance Garden, the largest of the four gardens, will have walls, gazebos, benches, a pool for fragrant water lilies all in a cottage garden style, set with beautiful, fragrant plants. To the south of this will be the Hildreth Garden, donated by the Associates of the Gardens, which will house many wonderful native plants. East of the Fragrance Garden is the Schlessman Plaza, made possible by the Lee Schlessman Family Foundation and the Johnson Foundation. This tranquil area will include benches, colorful planters and container plants. At the north side of the Romantic Gardens is the El Pomar Colorado Springs Waterway Garden designed in the style of Louis Barrigan with a shimmering water pool surrounded by high stucco walls and a spectacular waterfall.

The member and public opening has been set for this magnificent set of gardens, so plan to join us on August 14 to celebrate all of these gardens and the thousands of special new plants.

Richard H. Daley Executive Director

In memory of George Kelly

George Kelly, one of the early founders of Denver Botanic Gardens, died August 10, 1991. Kelly, born in 1894, served as the first director of Denver Botanic Gardens. He also authored several books, hosted "The Green Thumb" radio program on KOA, was an accomplished gardener and horticulturist and was involved in the excavation of several archeological sites, similar to Mesa Verde. Kelly lived in Cortez, Colorado for much of the latter part of his life and had become very involved with the Nature Conservancy. DBG was not notified of his death until recently and would like to applaud all that he contributed to horticulture and Colorado.



IMPROVEMENT PROJECTS UPDATE



Spring is here and the Romantic Gardens are quickly moving towards planting and completion. Construction is being finalized, all underground work has been completed, the walkway pavers have been installed, finishing touches are being added to the gazebo and work has begun on the soil grading. Planting is not far off.

In the Conservatory, the structure for the large banyon tree, which will house an elevator, is underway and the initial grading of the area is complete. The heating, ventilation, air conditioning have all been installed and are operational. Work continues to be on track for a November 1998 reopening.

Landscaping of the areas around the visitor parking lot has been installed, completing the parking lot renovation project.

DBG Guild open house

On Wednesday, May 20 at 10 a.m., the Guild will host an open house for prospective new members in the gazebo of the Herb Garden. Guild members will be planting the Herb Garden and will greet interested visitors to discuss volunteer opportunities. There will also be an orientation session for current new members.

The DBG Guild provides year round volunteer support for the Gardens. During the summer, the Guild maintains the Herb and Cutting Gardens in order to harvest cuttings to make herbed vinegars and create dried flower arrangements for the November Holiday Sale. They also dig and sell plants for the May plant sale. For more information, please call Marion Nutt, 793-0949.

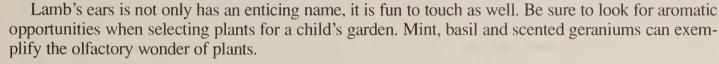
Gardening with children

It is quite easy to find ways to involve children in garden activities. Give them their own plot or plant(s) to cultivate. Take time to share the excitement of the plants' development throughout the growing season and remind young children frequently what they can anticipate.

Physically measuring and recording a plant's size weekly can help verify progress with plants whose growth may not be easily noticed. Remember that an entire summer's growing season can seem like an eternity to a young child. For this reason, fast growing, dramatic plants are often best for children's gardens. The complete cycle of growth is best illustrated if you start the plants from seed. For drama and interest, pumpkin, corn and sunflower are hard to top as kids' favorites, yet they can take most of the season to mature.

Fast growing flowers and crops that can fill the gap before the late summer harvest season include zinnia, marigold, carrot, radish and lettuce. Plants with interesting pages are popular to a Spendrose.

with interesting names are popular too. Snapdragon and monkey flower fit into this category.



Plants that behave in unusual ways are good candidates to capture a child's attention. The morning glory and four-o'clock are perfect to mark the day's progress and everyone marvels at the dramatic collapse of the sensitive plant when it is touched.

Imaginative garden themes and activities will help sustain kids' interest throughout the season. Making a scarecrow can supply hours of fun. Planting vegetables and herbs for a "pizza garden" can fill almost any young gardener with anticipation. Painting flowerpots, making pinwheels or building a birdhouse are just a few possibilities for rainy day pursuits.

Most avid gardeners can trace their love of the hobby to childhood memories at the side of a gardening parent or grandparent. Many children seem to have a natural interest in the growth cycle of plants that can be easily encouraged with a little forethought.

If you don't have room or time for a garden of your own, be sure to bring your children by Mr. McGregor's Garden in DBG's Morrison Community Garden. This new garden, open on Saturdays and Sundays from 6 a.m. to 8 p.m., is designed just for kids.

Summertime kids

"Summertime Kids" is a series of fun courses for children from preschool age through sixth grade. Children ages 3 to 11 are invited to discover the excitement and mystery of natural history at the Gardens' York Street site and Chatfield Arboretum this summer. These classes are designed to inspire budding artists, challenge aspiring naturalists and kindle an interest in other cultures. Professional, enthusiastic teachers are committed to providing an exciting, hands-on learning experience to students.

Summertime Kids begins June 2 and runs through August 21. Class size is limited, so be sure to register early! For additional information or to register, contact the education office, 370-8020 or 370-8019.



Keep your children in mind when planning a garden.

Slithery slimy...

This summer, Chatfield Arboretum is excited to provide several new classes to children and families. The Arboretum Kids Club provides classes on wetlands, insects and animal homes for a hands on experience that kids will not soon forget. In the "Slithery Slimy Club," children will be able to learn about amphibians and reptiles as they touch live specimens and search for wild animals in the wetlands. A class on Ute Native American culture will allow kids to travel back to the time when native people occupied this land. Students will learn about native skills for cooking, tipi setup and tool use.

Families are invited to attend our "Hitchhiker's Guide to the Summer Night Sky," where they will explore the horizon and learn about summer constellations. Check out the summer class catalogue, or call 973-3705, for more details.

CSU annual trials results

Before planning which spring annuals to plant this year, you may want to consider the results of the 1997 annual flower trial that was held at the W. D. Holley Plant Environmental Research Center on the campus of Colorado State University. In 1997, approximately 630 different varieties were grown. Members of the Colorado green industry evaluated the plants on August 8.

The best of show honor went to the dazzling flowers of 'Sonora' rudbeckia. A colorful zinnia mix named 'Oklahoma' was judged the outstanding new variety in the trial.

Three awards went to geraniums. 'Designer Purple Rose' garnered the award for best zonal geranium. Best ivy geranium went to a variety called 'Blizzard Pink', and 'Pinto Pink' was voted best seed geranium.

'Fantasy Blue', a dark blue petunia with a compact growth habit, was recognized as best petunia among a field of more than 140 varieties. Among impatiens, 'Dazzler Bright Eye' won top honors. The best New Guinea impatiens award went to a variety called 'Paradise Pearl White'.

The top award among marigolds went to 'Safari Tangerine'. 'Purple Rain' was judged best pansy and the best wax begonia in the trial was 'Senator Rose'.

The trial is open to the public and is a great destination for gardeners anxious to compare the performance of numerous bedding plant varieties in our region.



Bambusa vulgaris 'Waimin'

Bambusa vulgaris, known only in cultivation, undoubtedly originated in tropical Asia and is now widely planted in warm countries. A feathery bamboo, it is common in Puerto Rico, Jamaica and other places in the Americas. It can reach a height of up to 60 feet, forms a rather tight clump of culms, or stems, four to five inches in diameter and produces green leaves 6 to 9 inches long. The curious Bambusa vulgaris 'Waimin' is distinguished by the canes which are swollen just above each node and are much closer together than in the typical species. This bamboo is very ornamental and will make a beautiful specimen when planted in the renovated Conservatory.

1998 All-America Selections

Two flowers, a vegetable, and a culinary herb have been named as All-America Selections (AAS) for 1998. AAS operates a series of trial gardens throughout the U.S. and Canada for plant testing and promotion of outstanding new varieties.

This years' selections include a pure yellow, grandiflora petunia know as 'Prism Sunshine' which was selected for its exceptional performance and non-fading color. It is reputedly more vigorous than other yellow petunias and is heat and drought tolerant.

Gardeners with a bit of shade may want to shop for the AAS winner, 'Victoria Rose' impatiens. The blossoms are semi-double and the plants are adaptable to culture in containers and hanging baskets.

Vegetable growers should look for 'Bright Lights' Swiss chard. The stems range in color from yellow to orange, through red and purple, plus shades in between. They say that it is so pretty, you will hate to remove it from the garden.

The fourth winner is a lemon basil called 'Sweet Dani'. It grows with an upright, branching habit. The plant's light green leaves have a strong lemon scent. 'Sweet Dani' tolerates pinching with excellent regrowth or, if left to grow will produce white flower spikes for added interest.

DBG will plant AAS winners throughout summer bedding displays. Make sure to look for these varieties while touring the Gardens.



An earful

Make sure the water is boiling. Run out to the garden. Pick an ear. Dash back in. Boil two minutes, slather the butter on and eat! This most pleasurable experience comes to fruition after 8,000 years of careful crop selection. Botanists now believe corn was selected by early indigenous people from a plant named teosinte which still grows in the wild in Mexico, Guatemala and Honduras. By the time Columbus arrived in the New World, the crop had spread throughout the entire western hemisphere and had developed into six main varieties adapted to varying growing conditions ranging from severe drought in the desert Southwest to the frigid, 12,000 foot high Peruvian Andes.

Of all the cereals including wheat, rice, oats, etc., corn produces the highest yield. Its nutritional value is deficient in some protein. When the crop spread throughout the Old World the legends of the plant should have been transferred also to prevent those who ate it exclusively from suffering from Pellagra. Native people's use of the plant in both planting and eating combined it with beans. The nitrogen fixing properties of beans help fertilize the growing plant with nitrogen that otherwise would be tied up in the soil. When beans are combined with corn in a meal, the corn's lack of protein is complemented by the protein in the beans, providing an excellent protein source.

When European man was first confronted with corn as one of the few available food sources, he tried to grind it into a flour as he had done with wheat and oats. Unfortunately corn makes a very poor flour. Indigenous people had been working with it for thousands of years, and the tamale is a good example of full utilization of the grain. The corn is boiled (with a little lime) to separate the grain coats from the endosperm. When this happens, a dough can be created, and that dough can be used to wrap around beans and peppers for a little flavor. It's a complete meal all in one.

Books in the Helen Fowler Library used for this article are;

Camp, Wendell H., et al. *The World in Your Garden*. Washington, D.C.: National Geographic Society, 1957. SB 107 C127

Chilies to Chocolate: *Food the Americas Gave the World*. Tucson: University of Arizona Press, 1992. SB 176 .A48 C4 1992

Simpson, Bery Brintnall & Molly Conner-Ogorzaly. *Economic Botany: Plants in Our World*. New York: McGraw-Hill, 1986. SB 108 U5 S56 1986.

Answers from Dr. Green

Here is a sample of the many questions received on DBG's Dr. Green plant information help line.

Q. Should I collect and remove the grass clippings from my lawn?

A. Until quite recently, the popular advice was to remove grass clippings to avoid the accumulation of a thatch layer. This is no longer recommended. The clippings contain valuable nutrients that can be recycled into your lawn if left in place. To decompose quickly, the clippings need to be as small as possible. "Mulching" mowers are designed to cut the grass into small pieces that sift through the lawn easily and break down rapidly. Such mowers work best when the lawn is cut often (up to twice a week) and the grass is dry. A healthy lawn should be two to three inches tall after mowing, and not more than an inch of grass should be cut each time it is mowed. If large clumps of grass are formed during mowing, increase mowing frequency and be sure that the grass is not moist from dew or sprinklers.

Q. Any advice for growing sweet corn in Colorado?

A. The best sweet corn is produced by vigorous plants that have an adequate supply of soil moisture and nutrients. Planting may begin after the last frost free date — about May 10 in the Denver area. Be sure to choose a fast maturing variety if your growing season is short. Plant the seeds about a foot apart in rows 30 inches from each other. Planting two seeds per hole will insure no gaps in the row; thin to one plant per hole as they sprout. For full ears of corn without missing kernels, good pollination is essential. Since corn is wind pollinated, better pollination results from arranging shorter rows in a block rather than planting a single, long row. To avoid stunting, keep the plants from getting too dry during hot weather. Fertilize the crop in early July and keep weeds under control. The ears may be harvested about three weeks after the silk emerges. Corn is sweetest if eaten or frozen as soon as possible after harvesting.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m. at 370-8068. Or, leave a message anytime for a return call.



Sunrise walks... sunset strolls

Employee of the month

The March Employee of the Month is accounting assistant, Benny Juarez. Benny is recognized for his outstanding job performance and enthusiasm. In January, during his busiest time of the year, he worked diligently and without complaint to convert the payroll system. His hard work has paid off as there has been a very smooth transition. He also shows a commitment to the Gardens by ensuring that our policies and procedures are followed consistently.

Enjoy spectacular summer scenery while touring the Gardens' 23 acre site. Sunrise Fitness Walks begin Tuesday, June 2 from 7 to 8:30 a.m. and will continue every Tuesday morning through August. Walk at your own pace on a self guided tour and enjoy the gardens in the early morning light. Both the York Street and Cheesman Park gates to the Gardens will be open for your convenience. Admission is free.

Visitors can also enjoy Sunset Garden Strolls, sponsored by Bank of Cherry Creek, starting Wednesday, June 10 from 6 to 8:00 p.m. Tour the gardens while listening to lively music and pack a picnic or purchase dinner from Three Tomatoes catering at the Sunken Gardens. Additional strolls will take place on July 8 and August 5 from 6 to 8 p.m. Admission for members is \$4 for adults, \$2 for seniors and youth. For more information, call 370-8187.

Old style roses

The Denver Rose Society will host an "Old Garden Rose" demonstration from 9 a.m. to 2 p.m. on Saturday, May 30 in the Morrison Center. Rose enthusiasts are invited to display different types of roses that bloom just one time a year. For more information, please call 232-3653.

May means iris

Two iris shows are scheduled for May. The High Country Iris Society will host its second annual early spring flowering iris show on Mothers Day, May 10. The American Iris Society registered show will take place in the Iris Garden from 10 a.m. to 3 p.m. and will feature standard dwarf bearded, miniature dwarf bearded, species and intermediate bearded varieties. Contact Randy Penn, 761-5170 with questions.

The Iris Society Region 20 Show will be held Saturday, May 30 from 12:30 a.m. to 4:30 p.m. and Sunday, May 31 from 9:30 a.m. to 4 p.m. in Mitchell Hall. The show is open to all gardeners and will include a number of classes and an 18 and under youth division. Featured varieties are standard dwarf bearded, miniature dwarf bearded, species and intermediate bearded, aril and arilbred, boarder bearded, Siberian and spuria. The show will also include collections, single specimens, classics, antiques and heirlooms. For more information, contact Rob Stetson, 733-5709.

Glass at the Gardens

The Glass Artist's Fellowship of Denver will present its 19th annual Glass at the Gardens stained glass show and sale in DBG's Mitchell Hall June 3 through 14. The event which includes stained glass, painted glass, blown glass, slumped glass and carved glass, is the largest glass show in the United States. Look for more details in the June issue.

Art Guild show & sale

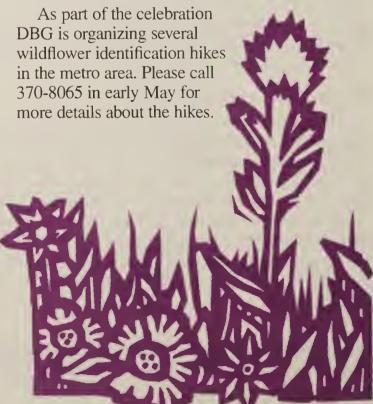
The Denver Allied Arts Guild will host its spring art show and sale at DBG's Mitchell Hall May 19 through 25. Various media, including watercolor, acrylic, oil, pastel, batik, ink resist and pieces in miniature format, will be available for viewing and purchase. Both framed and unframed works will be available for prices ranging from \$50 to \$400. All framed works will be juried by Denver artist, John Lencicki.

The show will be open from 9 a.m. to 8 p.m. on May 19, 23 and 24, and from 9 a.m. to 5 p.m. on May 20, 21, 22 and 25. Please call Pat Chapman at 699-0945 for more information.

Celebrate wildflowers

The kickoff week for "Celebrating Wildflowers" this year is May 17 through 23. This annual celebration of native wildflowers promotes the importance of conserving and managing native plants and native plant habitats in America.

Once again, DBG's partners in this event are the Bureau of Land Management and the U.S. Forest Service. This year the theme for our coloring book is wildflowers from the ponderosa pine forests. Ponderosa pine are the largest conifers in the southern Rocky Mountains. In Colorado, forests of ponderosa pine usually occur on sunny, dry mountain slopes. Throughout the week representatives from various agencies will be in the Lobby Court to discuss their displays and to hand out the coloring books.





Gardens, seascapes & lobster

Care to escape from Colorado's August heat this summer? Join Denver

Botanic Gardens and explore the craggy shores, deep evergreen coastlines, vibrant blue waters, history, and northeastern charm of Maine.

The tour will begin in Portland, then wind through several of Maine's historic coastal towns before reaching our final destination of Mt. Desert. Besides tours of numerous private and public gardens, travelers will enjoy hiking, birdwatching, nature and wildlife viewing in scenic locations including Acadia National Park, Skoodic Nature Point, Scarsborough Marsh and Ship Harbor Nature Trail. Special dinners and receptions are also planned.

Cost is \$1295, based on double occupancy, and includes lodging, all ground and ferry transportation, many meals, activities, entrance fees and guide services. Reservations and payment must be made by June 1. Trips to other locations, including the Grand Canyon and weekend camping outings are also planned throughout the remainder of the year. For more information, or to register, call 370-8051.

Memorials & Tributes

In memory of Jerry Kidwell Virginia Wielgot In memory of Wilma Grossman Anne L. Albi In memory of Sam B. Kellogg Beth C. Byers Mr. and Mrs. Larry Byers In memory of Alex H. Warner Mrs. Alex H. Warner In memory of Sue Roser Linda Morley In memory of Bill Gossard Ms. Carol Schutz In memory of Mary Kendal Atchison Ms. Carol Schutz In memory of Ruth Julsgard Mr. and Mrs. Lee Schultz In memory of Mr. Louis Paoli Catherine Kasper and David Vance In memory of Harry Stein Athanasia T. Stein In memory of Katherine Blixt

Birthdays...Anniversaries...Memorials...

You can make a contribution to the Gardens in memory or in honor of someone you love. It's a thoughtful tribute and a helpful gift to our institution. Please call (303) 370-8055 for more information.

From your membership office

Mom and Dad's day gift ideas

With a gift membership for mom (new or renewed) we will include a \$5 Gift Shop certificate good toward Mom's choice of lovely, floral note cards. Be sure to tell us the gift is for your Mother. This offer ends on Mother's day, May 10 so don't delay!

And, with Father's day coming up in June, plan on remembering Dad with a gift membership which he'll enjoy all year long. As a special bonus for him, we will include one free Evening Stroll ticket with the gift announcement card. Be sure to say this is a gift for Dad. Offer ends on Father's Day, June 21.

Seniors strolls

DBG senior members are invited to bring a guest and stroll the Gardens on June 3, July 1 and August 5 from 7 to 9 a.m., courtesy of Bank of Cherry Creek. Complimentary coffee and rolls will be provided on a first come basis. No reservations required. Contact 370-8021 for more information.

Denver Botanic Gardens Annual Fund

Support
people and plants
together

Our programs and exhibits can't exist on revenues from membership dues and restricted gifts alone. The Annual Fund supports the programs that help plants and people grow at DBG. Please send a gift this Spring that will make a difference for many children and adults in our community.

Help the Gardens' programs with a gift of \$50, \$100, \$200, or whatever is comfortable for you!

Complete this form and mail it today. Thank you in advance for your thoughtful, tax-deductible gift.

Name	
Address	
Phone	Today's date
MasterCard/Visa #	Exp. date
Amount of gift \$	

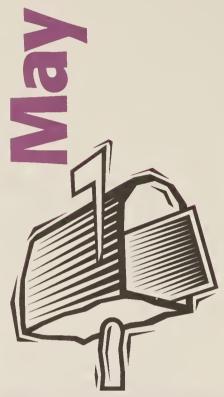
For more information on planned giving, or gifts of appreciated securities, call Rosalyn at 370-8030.

Denver Botanic Gardens

909 York Street Denver, Colorado 80206-3799

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Summer concerts begin in June. Watch your mailbox for more details!

May

- Free Day & Drop-in Tour at Chatfield Sensory Tour Guide Training
- Three G's Meeting
 Wild Plants & Native Peoples Lecture
- 4 Free Day at York Street
- 5 Bonsai Society Meeting
- 7 York Street Gardens Closed to Public *Plant and Book Sale Preview Party
- 8,9 *49th annual Plant and Book Sale
- 10 High Country Iris Show
- 12 Cactus Society Meeting
- 14 Rose Society Meeting
- High Country Judges WorkshopRocky Mountain African Violet Council Meeting
- 17 Begonia Society Meeting Watergarden Society Meeting

- 17-24 Celebrating Wildflowers Display
- 18 Ultra Violet Club Meeting Mycological Society Meeting
- 19 Bonsai Society Meeting
- 19-25 Denver Allied Arts Guild Show
- 20 Herb Society Meeting NARGS Meeting
- 27 NARGS Meeting
- 28 African Violet Society Meeting Gardeners of America Meeting
- 30 Denver Rose Society Old Garden Rose Display Bonsai Society Workshop
- 30, 31 Iris Society Region 20 Show



Green Thumb News



Denver Botanic Gardens

June 1998

Summer concerts

The summer concert series gets off to an exuberant start with celebrated jazz diva, Dee Dee Bridgewater on Friday, June 12, followed by the British folk music of Maddy Prior and Friends, with Kathryn Tickell on Thursday, June 18.

Concertgoers will enjoy a special preview of new music by Edgar Meyer, Mike Marshall and Sam Bush with guest violinist Joshua Bell on Friday, June 26.

Louisiana fiddles, accordions and guitars will have you dancing across the lawn when Beausoleil avec Michael Doucet returns to the Gardens on Friday, July 10. Charles Brown will entertain with his mellow vocals and rousing piano playing on Thursday, July 23.

The Grammy-winning gospel group, Fairfield Four, will stir your soul with their going-to-glory harmonies on Friday, July 31. Willie and Lobo will bring out the gypsy in you with their passionate blend of flamenco, Cajun, tango, bluegrass guitar and violin on Thursday, August 6.

We welcome back the bluesy elegance of Phoebe Snow on Friday, August 21, and Loudon Wainwright III sings the stories of his life on

Thursday, August 27. Solas will end the season on Thursday, September 3 with traditional Irish music.

The gates open at 6 p.m. and concerts begin at 7:15 p.m. Pre-order a gourmet basket from Three Tomatoes and enjoy a picnic dinner on the amphitheater grass. For your convenience, shuttle buses will run from the Target parking lot in Glendale. To order concert tickets, call JSP Tickets at 777-3836.



Maddy Prior

HELEN FOWLER LIB. ARY DENVER BOTA TO GARDENS

JUN 0 3 1998

909 YORK STELET DENVER, CO 80206-3751

Romantic Gardens countdown

This is the first in a series of three articles highlighting the new Romantic Gardens which will open to the public on August 14. In this article, information about design elements will be presented for each of the gardens. The next two articles, in the July and August issues, will highlight specific plants that you will see in the new gardens and details regarding the August opening and celebration.

The Romantic Gardens are a series of elegant gardens with distinctive features designed to excite the visual and olfactory senses, to provide new horticultural displays and to offer new educational opportunities. They are designed in the style of garden rooms, each area special and unique so visitors can gain a sense of diversity and intimacy of space. There are five component gardens: The O'Fallon Perennial Walk, the Fragrance Garden, the El Pomar Waterway Garden, the Schlessman Courtyard Garden and the Hildreth Shade Garden.

The Perennial Walk leading to the other gardens was completed in 1996. Environmental Planning & Design (EPD) of Pittsburgh, Pennsylvania, formulated the landscape concept and Rob Proctor and Lauren Springer developed the planting plan. The planting design consists of alternating color blocks along the length of the walk, featuring flower color from February through October and interesting foliage year-round. Plant selection was based upon species that are more drought tolerant than those used in a typical perennial border.

The Waterway Garden in the Romantic Gardens complex is modeled loosely after the water canal and wall creations of Luis Barragon, a noted Mexican architect. DBG's garden will feature an entry court off the south end of the Perennial Walk with eight-foot stucco walls decorated with ceramic tiles

(continued on page 3: "Romantic Gardens...")

Green Thumb News June 1998

Published monthly by Denver Botanic Gardens' Marketing and Special Events Dept., 909 York St., Denver, CO 80206 Edited by Julie Behrens Deadline for August issue: June 15

Getting in touch with DBG

General information	331-4000
TDD	370-8032
Dr. Green plant information	on 370-8068
Tues. and Thurs., 1 to 3	$\beta p.m.$
Plant <i>talk</i> (24-hour)	-888-666-3063
Gift Shop	331-4009
0.20 a.m. 1.20 n.m.	

9:30 a.m. - 4:30 p.m.

Sun. through Sat., 9 a.m. to 5 p.m.

370-8014

Closed major holidays.

Helen Fowler Library

Mon. through Fri., 8 a.m. to 5 p.m.

0	
Class registration	370-8020
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Media relations	370-8033
Membership services	370-8029
Plant society meetings	370-8097
Security, emergencies	370-8017
Special events information	370-8187
Tribute gifts	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department, Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

From the executive director

Denver Botanic Gardens' Gift Shop has been a source of both great pride and income for most of the history of the Gardens. We continue to look for ways to develop this Shop as a major feature of the Gardens and last year completely renovated and expanded the Shop to accommodate a larger and more varied inventory.

Throughout its existence, the Shop has been a success due to a great many volunteers. In this month's column I'd like to take the opportunity to sing the praises of several of our most devoted Gift Shop volunteers who have each given years and years of service to the Gardens. These women, Avalonne Kosanke, Joan Franson, Susan Kosmiski, and Marion Delanoy, have constituted the Gift Shop Board for many years. During their tenure, the Shop has earned more than two million dollars in net income for the Gardens which has allowed us to grow and prosper in many respects.

With the expansion of the Shop and with the ever increasing need for more financial resources, we have made a decision to manage the Shop as a business department under the Director of Marketing, Mary Johnson. We have also hired a new Gift Shop manager, Sandra Wilson, and I have every confidence that the Shop will continue to be a source of pride and income as we work to fully integrate it into the Gardens' operations.

As it always has been, the Shop will continue to rely heavily on our volunteers. If you are interested in volunteering, please contact our volunteer coordinator, Joedy Arnold. Thanks to the tremendous effort from Avalonne, Joan, Susan, Marion and their colleagues, the Gift Shop is well poised for continued future success. We owe you a great debt of gratitude.

> Richard H. Daley Executive Director

Employee of the month

April's employee of the month is Susanne McLennan. Susanne has demonstrated continued outstanding job performance through her initiative and enthusiasm. Serving as payroll backup, Susanne still has time to handle all the responsibility of a one-person Human Resources department to ensure the best employees are hired when positions open. Congratulations Susanne!



IMPROVEMENT PROJECTS UPDATE

The August 14 opening of the Romantic Gardens is rapidly approaching. Construction has been completed except for a few finishing touches and soil will soon be laid in preparation for planting.

In the Conservatory, the large "false" banyan tree design element is starting to look like a tree! Installation of the underground utilities and construction of the retaining walls and paths will be completed in June. Work behind the scenes is still underway to complete the heating and water steam systems.



Three Tomatoes

Denver Botanic Gardens is pleased to announce an agreement with Three Tomatoes catering to provide on-site catering services. After an extensive search, Three Tomatoes was selected because of their high quality gourmet foods, selection and service. Their tasty cuisine will be available at DBG events and at the Tomato Garden Cafe, located in the Sunken Gardens and open seven days a week from 11 a.m. to 3 p.m starting June 1 through the end of August.

"Pete" Petersen Award

The Bernice "Pete" Petersen Award has been established to honor and recognize volunteers who live up to the inspiring example and spirit of "Pete" Peterson, a long-time friend of DBG who gave many years of service to the Gardens, passed away April 3.

Pete Petersen devoted decades of service to the Gardens as editor of the Green Thumb Magazine, coordinator of the Rock Garden Section of the annual Plant and Book Sale, and as a member of the Hospitality Committee at Chatfield Arboretum. Her exceptional contributions as a friend and volunteer will have a longlasting impact on Denver Botanic Gardens and her quiet yet elegant presence and everpresent humor will be greatly missed.

and ornate iron panels flanking the entryways on the north and south, and a quartet of matching ornamental trees.

The water canal will begin as a smooth sheeting waterfall at the east side of the entry court and flow to the west end of the new complex—nearly to Anna's Overlook. The eight foot stucco walls will continue west from the entry court, flanking the water canal. The focal point of the water canal area, in addition to the canal, will be a series of specimen oval, columnar trees along the south side that will compliment the north wall. The shadows cast by the trees will be particularly prominent during fall, winter and spring when the sun is lower in the sky.

The original Fragrance Garden concept at DBG dates back to 1990 when a design and plant list were created by EDAW, Ft. Collins, CO. In 1992, the concept was incorporated into the revised facility plan by EPD.

EPD designed the Fragrance Garden with a central oval turf area surrounded by ground-level beds and raised planters, a pool for water lilies, arbors for vines, walls and a cordon for espaliers. A brick walk, like that of the perennial walk, will provide an informal pathway through the garden. The retaining wall of the raised planter will provide seating in addition to several benches. The main plant selection criteria for this garden is fragrance.

The Courtyard Garden will be the focal point of the east side of the Romantic Gardens. At its center will be a diamond-shaped plaza composed of alternating green- and buff-colored stone. Flanking the plaza to the west will be two matching pavilions. These octagonal pavilions will have green-tiled roofs, stucco exteriors and brick accents around the base and windows, reminiscent of the Botanic Gardens House (Waring House).

From the Courtyard Plaza, you will be able to look west through the Fragrance Garden, over the lawn, water lily pool and through a lattice panel wall that focuses attention on the waterway. The south end of this garden has a small alcove which will contain a feature element, yet to be determined, that will act as a focal point from the Perennial Walk. The remainder of the Courtyard Garden, east of the diamond-shaped plaza, is the foyer for the proposed temperate greenhouse.

The Hildreth Shade Garden, named in honor of Dr. A.C. Hildreth, former director of Denver Botanic Gardens, is nestled just south of the Fragrance Garden and east of the Herb Garden. It will feature native shade-tolerant plants.

Feng Shui and classical Chinese gardens

"Up in heaven there's a Paradise, down on earth there's Suzhou."

Learn more about Suzhou, the Chinese classical residential gardens, and the ancient Chinese art of Feng Shui gardening on Tuesday, July 14 at 7 p.m. in Mitchell Hall. DBG in association with the International Feng Shui Research Centre, Boulder, will present Feng Shui and Classical Chinese Gardens. Linsey Franklin, the Centre's Executive Director, will introduce Feng Shui garden components, design, philosophy and their applications here in Colorado. She will also share never before seen photographs taken on annual study tours of China and information previously unavailable in English.

Franklin began studying the foundations of Feng Shui over 16 years ago in England. She has consulted and taught Feng Shui throughout the world. Her writings appear in international publications and professional journals. Rejecting the label of expert, Franklin calls herself a "perpetual student."



A Feng-Shui style garden.

Pre-registration is suggested to assure receipt of reference materials prior to the lecture. Please call 370-8020. The cost of the program, including handouts, is \$15 for Gardens members and \$20 for non-members.

For information about the Feng Shui Centre, please contact them at either 939-0033 or http://www.Fengshui2000.com.

Blue garden flowers

Blue is the favorite color of many gardeners, yet true blue hues are comparatively rare in flowers. Individual color perception varies, but in the majority of cases, flowers in the blue part of the color spectrum usually tend toward shades of lavender, violet or purple. Such is the case with many iris cultivars, yet blue flowers can be found.

Gardeners seeking true blue in a low-growing plant should hunt for the bluest varieties of edging lobelia (*Lobelia erinus*). The taller mealy-cup sage (*Salvia farinacea*) is available in some choice blue shades too, including the varieties 'Blue Bedder' and 'Victoria'.

Other blue annuals may be found in cultivars of browallia (*Browallia speciosa*), forget-me-not (*Myosotis sylvatica*), borage (*Borago officinalis*) bachelor's button (*Centaurea cyanus*) and morning glory (*Ipomoea tricolor*). Scaevola (*Scaevola cvs.*) is a somewhat recent introduction that has some blue-flowered varieties. It is popularly grown in hanging baskets.

Perennials in blue shades are somewhat easier to find. Try 'Butterfly Blue' pincushion flower (*Scabiosa* cv.) or the cultivars 'Isis' and 'Zwanenburg Blue' of spiderwort (*Tradescantia virginiana*). Monkshoods (*Aconitum* spp.) and bellfowers (*Campanula* spp.) offer a variety of flowers in various shades of blue.

Other perennials with blue-flowered varieties include lupine (*Lupinus* cvs.) and speedwell (*Veronica* spp.). *Veronica longifolia* 'Foerster's Blue' is recommended. Perennial species with blue blooms include Italian bugloss (*Anchusa azurea*), flax (*Linum perenne*), plumbago (*Ceratostigma plumbaginoides*), Stokes' aster (*Stokesia laevis*), Jacob's ladder (*Polemonium caeruleum*) and blue false indigo (*Baptisia australis*).

Persistent gardeners will find additions to this list. Sometimes the bluest flowers exist only in a particular cultivar of a plant.



TROPICAL TREASURES

Amorphophallus titanum

Commonly referred to as "Devil's-Tongue," "Snake-Palm" or "Krubi," the genus *Amorphophallus* belongs to the arum family *Araceae*. Restricted in the wild to tropical Asia and Africa, *Amorphophallus* comprises about 100 deciduous, mostly tuberous herbaceous perennials.

The tuber produces a single leaf with an upright stalk and a spreading leaf blade with three primary divisions and many small leaflike lobes. What is referred to as the "flower" is an inflorescence, a combination of many small flowers and attendant parts. When in bloom, some kinds emit a penetrating foul, nauseating odor that in the wild attracts carrion insects, which are pollinating agents. The fruits are berries.

Within the genus is the notable species *titanum*, frequently, but incorrectly referred to as having the largest flower in the world. The tuber which can weigh as much as 100 pounds, produces a leaf which attains a height of approximately six feet, with a spread of about 10 feet. DBG currently has a tuber in a five-gallon container with a leaf stalk of about six feet tall by four feet wide. This plant will grow in a pot for many years, rotating in and out of the Conservatory.

Gary Davis, Greenhouse Supervisor



Amorphophallus titanum *Illustrated by Jayme S. Irvin*.



August

,	2	Colorado	Watercolor	Society	Show
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- 3 Free Day at York Street
- 3-9 DBG Trip to Maine

5

6

14

25

- **Sunrise Fitness Walk**
- Sunset Garden Stroll
- Senior Early Morning Stroll members only
 - Summer Concert Willie and Lobo
- Free Day & Drop-in Tour at Chatfield Arboretum
- 8, 9 Mile High Daylily Society Sale
- 11 Sunrise Fitness Walk
- Fete des Fleurs
 - Romantic Evening in the Gardens
- 14-16 Romantic Gardens Opening Weekend
- 15, 16 Colorado Mycological Society Mushroom Fair
- 18 Sunrise Fitness Walk
- 19 Family Walkabout
- 21 Summer Concert Phoebe Snow
 - **Sunrise Fitness Walk**
- 27 Summer Concert Loudon Wainwright III

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Other perennials with blue-flowered varieties include lupine (*Lupinus* cvs.) and speedwell (*Veronica* spp.). *Veronica longifolia* 'Foerster's Blue' is recommended. Perennial species with blue blooms include Italian bugloss (*Anchusa azurea*), flax (*Linum perenne*), plumbago (*Ceratostigma plumbaginoides*), Stokes' aster (*Stokesia laevis*), Jacob's ladder (*Polemonium caeruleum*) and blue false indigo (*Baptisia australis*).

Persistent gardeners will find additions to this list. Sometimes the bluest flowers exist only in a particular cultivar of a plant.



TROPICAL TREASURES

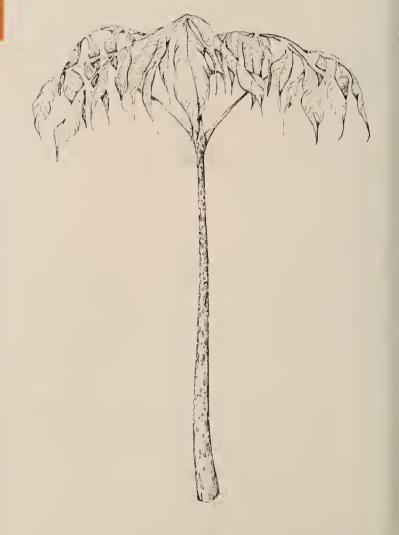
Amorphophallus titanum

Commonly referred to as "Devil's-Tongue," "Snake-Palm" or "Krubi," the genus *Amorphophallus* belongs to the arum family *Araceae*. Restricted in the wild to tropical Asia and Africa, *Amorphophallus* comprises about 100 deciduous, mostly tuberous herbaceous perennials.

The tuber produces a single leaf with an upright stalk and a spreading leaf blade with three primary divisions and many small leaflike lobes. What is referred to as the "flower" is an inflorescence, a combination of many small flowers and attendant parts. When in bloom, some kinds emit a penetrating foul, nauseating odor that in the wild attracts carrion insects, which are pollinating agents. The fruits are berries.

Within the genus is the notable species *titanum*, frequently, but incorrectly referred to as having the largest flower in the world. The tuber which can weigh as much as 100 pounds, produces a leaf which attains a height of approximately six feet, with a spread of about 10 feet. DBG currently has a tuber in a five-gallon container with a leaf stalk of about six feet tall by four feet wide. This plant will grow in a pot for many years, rotating in and out of the Conservatory.

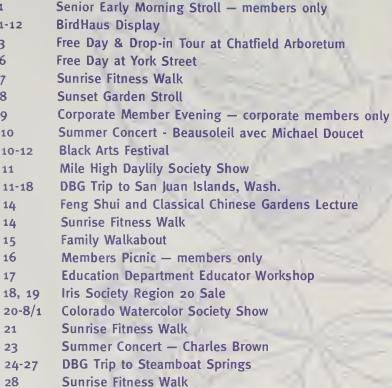
Gary Davis, Greenhouse Supervisor



Amorphophallus titanum *Illustrated by Jayme S. Irvin*.







Summer Concert — Fairfield Four

11





1, 2	Colorado Watercolor Society Show
3	Free Day at York Street
3-9	DBG Trip to Maine
4	Sunrise Fitness Walk
5	Sunset Garden Stroll
5	Senior Early Morning Stroll — members only
6	Summer Concert — Willie and Lobo
7	Free Day & Drop-in Tour at Chatfield Arboretum
8, 9	Mile High Daylily Society Sale
11	Sunrise Fitness Walk
13	Fete des Fleurs
14	Romantic Evening in the Gardens
14-16	Romantic Gardens Opening Weekend
15, 16	Colorado Mycological Society Mushroom Fair
18	Sunrise Fitness Walk
19	Family Walkabout
21	Summer Concert — Phoebe Snow
25	Sunrise Fitness Walk
27	Summer Concert — Loudon Wainwright III



September

3	Summer Concert — Solas
4	Free Day & Drop-in Tour at Chatfield Arboretum
7	Free Day at York Street
9	New Member Party — members only
12, 13	Gloxinia Gesneriad Growers Show & Sale
19, 20	Plant Dividend Days — members only
23	Bonfils-Stanton Lecture
24	Behind-the-Scenes Tour — Arbor Circle level members & above
27	Waxman University Photography Workshop

Denver Botanic Gardens 1998 Calendar of Events

Denver Botanic Gardens 303.331.4000 1005 York Street Denver, CO 80206 Chatfield Arboretum 303.973.3705 8500 Deer Creek Canyon Road Littleton, CO 80128



October

Free Day & Drop-in Tour at Chatfield Arboretum The Practical Landscape Symposium Free Day at York Street Pumpkin Festival at Chatfield Arboretum Denver Orchid Society Show & Sale Rocky Mountain African Violet Council Fall Sale 18-23 DBG Trip to Grand Canyon 24, 25 Goblins in the Gardens — members only **Bonfils-Stanton Lecture**



November

WATCH FOR THE GRAND RE-OPENING OF THE BOETTCHER TROPICAL CONSERVATORY

Tempel Wildflower Lecture Free Day & Drop-in Tour at Chatfield Arboretum SCFD 10th Anniversary Celebration Free Weekend at York Street Holiday Sale (tentative)



December

Herald the Season — members only Free Day & Drop-in Tour at Chatfield Arboretum Mrs. Waring's Party **Teddy Bear Teas** Tree-mendous Kickoff at Chatfield Arboretum Blossoms of Light opening ceremonies **Blossoms of Light Holiday Celebration Teddy Bear Teas Teddy Bear Teas** 13 **Teddy Bear Teas**



September

- Summer Concert Solas

 Free Day & Drop-in Tour at Chatfield Arboretum

 Free Day at York Street

 New Member Party members only

 Gloxinia Gesneriad Growers Show & Sale

 Plant Dividend Days members only

 Bonfils-Stanton Lecture
- Behind-the-Scenes Tour Arbor Circle level members & above
 Waxman University Photography Workshop



Pollinate your penstemons

When a local penstemon enthusiast came to visit my garden, his summation of the visit was one statement. "Looks like you've got a lot of hybrids." Well, I confess, yes I do, because other than the ones I was given, or purchased, I raised most of mine from seed. Was the seed tainted? No. What happened? The seed came from the Denver Botanic Gardens' Rock Alpine Garden, not from the plants' natural habitats. In many cases even these came true to form. Why some and not others? In their native environments the 250 species of penstemon do not usually create hybrids. They prevent hybrids by having ranges that don't overlap, blooming at different times, having different pollinators, and having seed that doesn't travel great distances.

Of course, in the Rock Alpine Garden some of these limiting factors are still true, but many plants that are not normally within the same pollinator range are brought very close together. *Penstemon halli* and *Penstemon procerus* were two that came true to seed. They have very small flowers that are too small to be pollinated by honeybees. The other plants that created the masses of hybrids ended up having similar flower shapes that could be pollinated by honeybees.

In their native habitats some penstemons produce hybrids under unusual circumstances. Hummingbirds can create a hybrid on penstemons (which are normally pollinated by insects) by robbing nectar. The hummingbird pushes its beak through the flower tube from the side. It then inserts its pollen-laden beak into a red-flowered traditional hummingbird penstemon and the resulting seed is a new hybrid.

In their native habitats, penstemons have many pollinators, not just hummingbirds and honeybees. They can be pollinated by bumble bees, carpenter bees, medium- and small-sized wild bees, bumble bee flower beetles, beeflies, moths, skippers, swallowtail butterflies, and pseudomasarid wasps. Different kinds of penstemon flowers have evolved to accommodate different pollinators. The wasp-pollinated flowers are very subtle. The flowers are medium-sized and the throat of the flower is typically slightly inflated. To prevent other insects from pollinating the flower the staminode (the infertile stamen-like structure making the "fifth" stamen of the name "penstemon") blocks the pathway of insects that aren't wasp-size.

Watch your penstemons as they bloom and enjoy the chance to watch native pollinators at work.

Answers from Dr. Green

Here is a sample of the many questions received on DBG's Dr. Green plant information help line.

Q. What plants will attract hummingbirds to my garden?

A. Hummingbirds are Colorado summer residents primarily in the mountains and foothills of the state. However, they're frequently seen in Front Range cities as they migrate to their summer nesting sites and some certainly reside in the western suburbs and communities near the mountains. The diminutive birds feed on nectar and tiny insects. It's relatively easy to provide the plants they love since many of these plants thrive in this area. The hummingbird's long, pointed beak has evolved to reach into tubular flowers.

Among their favorites are petunia, monarda, salvia, snapdragon, nicotiana and lily. Native flowers, some which are also available as garden hybrids, include lupine, Indian paintbrush, campanula and columbine. Penstemon or beardtongue is another hummingbird favorite. Regional gardeners may choose from native penstemon species or hybrid varieties. Red and orange flowers are the humming-bird's passion so plant as many varieties in the fiery hues as you can stand.

When planning a flower bed or border to attract hummingbirds, consider plant height carefully. To be sure you can see the birds as they are feeding, plant shorter plants at the front of the bed and taller varieties toward the back. Since the birds are very territorial, plant duplicates of favorites in different locations so that multiple birds may feed. Plant your hummingbird garden with a mix of annuals and perennials to ensure flowers all season. Flowering shrubs such as honeysuckle and lilac also attract the birds. Conifers seem to provide their preferred nest sites so you may want to plant a spruce or fir tree nearby if none exists.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m. at 370-8068. Or, leave a message anytime for a return call.

Sources for this article:

Backman, Shirley. "Pollination in Penstemons: The Big Three." Bulletin of the American Penstemon Society. v. 53, no. 2 (July 1994), p. 3-13.

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Moore, Gwen. "Some Penstemon Pollinators." *Bulletin of the American Penstemon Society.* v. 38, no. 1 (July 1979), p. 12-17.

Stermitz, Frank. "Penstemaniacs of the Insect World: Butterflies and Moths Which are Penstemon Specialists." *Bulletin of the American Penstemon Society*. v. 52, no. 1 (January 1993), p. 7-9.



'Candelabra', a 1999 All American Rose Selection.

June features water plants, roses & bonsai

The Colorado Water Garden Society annual plant sale will be held June 7 from 10 a.m. to 2 p.m. or "sold out" at DBG's Morrison Center. Plants from all over the United States will be brought in for the sale. Selections include lilies (hardy and tropical, standard and miniature, in all colors) and marginal and bog plant varieties (both tropical and hardy). Pond fish and critters, planting containers, assorted pond care products and free plant culture and pond care information will also be available. Call Cyndie Thomas, 755-1885, or Stan Skinger, 237-0071, for more information.

Modern and old garden roses and rose arrangements will be featured at the Denver Rose Society's June 20 show at Mitchell Hall. Entries for the judged competition will be accepted from 7:30 to 10 a.m. and the show will open to the public for viewing from 12:30 to 5 p.m. Rose arrangement classes, for designing with a Victorian theme, will also be offered throughout the afternoon. For more information, call Susan Bishop at 690-7144.

The Rocky Mountain Bonsai Society will hold its annual show featuring bonsai trees in their summer color on June 27 and 28. Bonsais and supplies will be for sale and experts will give pruning and care demonstrations. The show and sale will open on Saturday from 9 a.m. to 5 p.m. and Sunday from 9 a.m. to 4 p.m. Contact Darrell Havener at 234-0421 for more information.

Hands-on teacher training at Chatfield

This summer, Chatfield Arboretum will be hosting Wetlands and Grasslands Institute training seminars for the Colorado School of Mines Teacher Enhancement continuing education program. During the Wetlands Institute, June 16 to 19, teachers will explore the wetlands of the Arboretum to learn about wetland soil, ecology, history and benefits. Activities provided will allow teachers to bring the experience of the wetlands back to their classrooms.

The Grasslands Institute, June 25 and 26, uses hands-on activities to introduce teachers to the short-grass prairie ecosystem that is native to eastern Colorado. All teacher training seminars are led by trained staff and include guest expert speakers. Teachers are also provided with classroom activities to take home.

For more information on both programs, call 973-3705.

Certificate program passes first graduates

The Education Department is proud to announce the first graduates of the Gardens' Rocky Mountain Gardening Certificate program. This past fall, Sharen Baldwin was the first student to receive the program's Certificate of Completion. In the spring, Jane Hultin and Linda Mayer both completed the Certificate of Merit which included 40 hours of hands-on experience working with the Gardens' horticultural staff.

The Gardening Certificate program began in fall 1995 and is a comprehensive study of basic gardening practices for Front Range gardeners. This intensive program has two levels: the Certificate of Completion which requires that students must complete 13 core courses and a minimum of three elective courses, or, the Certificate of Merit which also includes the required courses, an additional 40 hours of hands-on internship at the Gardens and a comprehensive final exam.

Instructors for the program include DBG staff members, Colorado State University Horticulture Extension Agents, local gardening authorities in the green industry and other regional experts in horticulture and natural sciences. The program is endorsed by The Colorado Nursery Association.



The Reflections sculpture has graced the Gardens' waterway pool for 15 years.

Sculpture at DBG

Sculpture is an important adjunct to gardens and DBG has some notable examples on display. "Reflections," a marble piece by Frank Swanson, has stood in the waterway pool near the Aztec garden for the last 15 years.

The sculpture actually consists of three pieces of stone which mirror each other in an intriguing, interlocking design. The art came to DBG as part of a 1983 summer display called "Sculpture in the Gardens" which featured eleven large-scale sculptures in various locations about the site.

"Reflections" stayed at DBG following the exhibit through the generosity of Terry and David Touff, who purchased the sculpture for the Gardens. A plaque near the sculpture reads "given to Denver with gratitude."

If you are interested in donating sculpture for the Gardens, call Jennifer Darling at 370-8027.

Glass at the Gardens

The Glass Artist Fellowship of Denver will present its 19th annual Glass at the Gardens show and sale, held June 3 through 14. The show will offer a rare opportunity to see and buy original works of glass art that have not previously been shown for competition. Fine art sculptures and practical works such as lampshades, jewelry boxes and coffee mugs, will be created from mediums including stained glass, painted glass, blown glass, slumped glass and carved glass. Prices range from pennies to thousands of dollars. The event will begin on June 3 at 1 p.m. and will end on June 14 at 5 p.m. Hours of the show are the same as the Gardens and admission is included with the Gardens entrance fee. Call Wylie Smith at 935-5489 for more information.

Enter a garden photo contest

Add a few rolls of film and a camera to your list of garden supplies this spring, and picture your garden winning one of 25 prizes, including the \$1,000 "Best of Show" cash prize, in the second annual Fox Photo American Home & Botanical Garden Photo Contest. Entry deadline is July 31.

The contest is sponsored by Fox Photo Inc., Better Homes and Gardens magazine and the American Association of Botanical Gardens and Arboreta (AABGA), of which Denver Botanic Gardens is a member.

Entries must be either 5x7 or 8x10 unmatted color photos and must by accompanied by an official entry form. Winners will be notified in September. All photos become the property of the contest sponsors.

Garden photo tips and contest rules are available for no charge at Fox Photo and CPI Photo locations, or by sending a self-addressed, standard business-size stamped envelope to Fox Photo Garden Tips, 8026 Venetial Dr., St. Louis, MO 63105, or on the Internet at www.foxphoto.com, www.bhglive.com or www.aabga.mobot.org.



by Three Tomatoes

"Backyard BirdHaus Brew" by Wynkoop Brewing Co.

Musical appearance by the Undercover All Stars

5:30 p.m. — Silent Auction opens (concludes following live auction)

Auctioneer Scott Alexander

\$20 per person Children 12 & younger \$10

All proceeds will benefit DBG's youth education and horticulture programs.

r.s.v.p. by June 18

QNEWSAL UNITED AIRLINES

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Denver Botanic Gardens thanks those Corporate Partners, Circa Botanica, Four Seasons, Perennial Partners, Conservator's Society and Botanist Club members who began or renewed their memberships during the first quarter of 1998.

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Grand Canyon rambler

The only way to truly experience the Grand Canyon is on foot! Hike the South Rim and Havasu Canyon on a Gardens' trip October 18 through 23. The variety of sights offered within the Canyon is overwhelming. The landforms, colors and spectacular vistas provide an incredible visual adventure. You will also learn about the Indian culture, plant life and history of the Canyon. And, the immense feeling of accomplishment achieved by hiking the Canyon is the best part. (This is a very demanding trip which requires good physical health.) Do not put off hiking this natural wonder another year; follow

other members down the winding trails of this once-in-a-lifetime adventure!

The \$1295 price is based on double occupancy and includes lodging, land transportation from Flagstaff, all meals, entrance fees, and guiding services. A \$400 deposit is required. Final payment is due July 1. An optional two-day Colorado River whitewater extension is also being considered. For more information, or to register, call 370-8051.



Enjoy the hauntingly beautiful sounds of world renowned shakuhachi players in the Gardens on Monday, July 6 from 1:30-4 p.m. The shakuhachi is a bamboo flute often associated with the ancient Japanese tradition of Sui-zen ("blowing meditation"). According to legend, Sui-zen traces its foundation to the followers of the 9th Century Chinese Zen Master Fuke, whose ringing bell and bamboo flute were a main component of his wandering teaching of meditation and healing.

The Garden performance is being sponsored by the 1998 World Shakuhachi Festival. The University of Colorado at Boulder, College of Music, is hosting the festival which will celebrate the diversity of the shakuhachi— everything from classical to contemporary, zen to jazz, popular to avant garde. For more information about the festival call 245-8712. To reserve tickets for the Garden performance, call 440-7666.

Family Walkabouts

Families are invited to explore the Gardens on July 15 and August 19 and experience a wide variety of entertaining adventures including music, science, story telling, theater and games. Family Walkabouts are presented by the Bank of Cherry Creek and are open to families from 6 to 8 p.m. Admission for adults and children is \$6. Children five and younger are admitted free. Call 370-8187 for more information.

Rise and walk!

Increase your fitness level this summer with a weekly morning walk at the Gardens. For your walking pleasure, DBG will open early every Tuesday morning June 2 through August 25 from 7 to 8:30 a.m. Admission is free to both members and the general public. You may enter the Gardens through the York Street or Cheesman gates. For more information, call 370-8018.

Stroll to music

Soft music for summer evenings will be the centerpiece of this summer's Sunset Garden Strolls, presented by the Bank of Cherry Creek. Guests are invited to saunter along DBG's meandering paths and enjoy the performances of a variety of musicians positioned throughout the Gardens.

June 10 marks the first of three Sunset Strolls. Appearing in the amphitheater will be the Last Note Singers, a well known local a cappella group. Junko Shigeta's koto music will grace the Japanese Garden. In the Home Demonstration Garden visitors will discover Belinda Berry, flautist and Rachel Williams, harpist. "Kitar," a blend of piano and guitar will entertain in the Rock Alpine Garden. Visitors can also enjoy Shawn Flink performing classical guitar in the Sunken Gardens.

Guests can purchase nightly food specials from Three Tomatoes catering or may bring their own picnic dinners.

Future strolls are July 8 and August 5.
Member admission to each stroll is \$4 adults and \$2 for seniors and youth. Non-member admission is \$6.50 for adults and \$4 for seniors and youth. Children 5 and younger are free. For more information, call 370-8187.



From your membership office

Member's flowering fiesta

Join the fiesta at this year's annual member picnic on Thursday, July 16 in the Gardens. The evening will feature Mariachi Vasquez, one of the hottest mariachi families in the country! Children can participate in several craft projects and cool off with ice cream. Festivities will take place from 6 to 8 p.m. New members are invited to come at 5:30 p.m. for a special tour of the indigenous gardens. Watch your mail for a special "Flowering Fiesta" invitation with price and reservation information.

Remember Dad on his day

Treat Dad to a year-long gift membership and bring him to one of our delightful Sunset Strolls at the Gardens! Along with a new or renewed gift membership for Dad, we will include one free Sunset Stroll ticket (June 10, July 8 or August 5). Please purchase no later than Father's Day, June 21. For speedy service, call 370-8029 with your VISA or MC number. Be sure to tell us this gift is for Dad.

Memorials & Tributes

In memory of Elsa Burger

Beth C. Byers

Mr. and Mrs. Larry Byers

In memory of Andrew Ranum

Ms. Udine Ann Barron

In memory of Geraldine and Irwin Wolff

Mrs. Edwin C. Komfeld

In memory of Fay Hindin Debra Hindin-King

In memory of Mr. Paul Treide

Ms. Anne C. Cooper

In memory of Susie B. King

Mr. and Mrs. Martin J. Harrington, Jr.

In memory of Teresa Pearl Najar Mr. and Mrs. William J. Dorgan

In memory of Rick Gsell

Mrs. Shirley Gsell

In memory of Edwin Kornfeld

Clark, Marlys, and Grant Hardesty

In memory of Lynn Keeley's mother

Trish Zickefoose

In memory of Marie Schriner

Ms. Mary L. McCuen

In memory of Peggy Hedlund Mr. and Mrs. Warren Burdick

Mr. David C. Hedlund

In memory of Judy and Monica Kaufmann

Ms. Priscilla McClintock

In memory of Lynn Sheridan

Ms. Priscilla McClintock

In memory of Bill Alexander Ms. Priscilla McClintock

In memory of Tony Cryder

Ms. Priscilla McClintock

In memory of Dorothy Porter

Ms. Priscilla McClintock

In memory of Sam B. Kellogg Ms. Priscilla McClintock

Birthdays...Anniversaries...Memorials... You can make a contribution to the Gardens in memory or in honor of someone you love. It's a thoughtful tribute and a helpful gift to our institution. Please call (303) 370-8055 for more information.

Important August dates to remember

Mark Thursday, August 13 on your calendar for the annual Fete des Fleurs black-tie gala and Friday, August 14 for a Romantic Evening at the Gardens to celebrate the new Romantic Gardens. Look for more details in the July issue.

Give to the Gardens and save on taxes

To ensure that future generations can enjoy the splendor of the Gardens and the full breadth of the services that DBG provides, please consider the Gardens when planning your finances. The following three creative "giving" options will provide the Gardens will valuable support and may also provide you with helpful tax breaks.

Stock gifts

With the stock market reaching record highs, many of you now find yourselves holding highly appreciated assets. If you choose to sell those assets, you may be charged significant capital gains taxes. To avoid "making a gift" to Uncle Sam, use those appreciated securities to make a gift to the Gardens. By donating stock that has been held for more than one year and risen in value, you can avoid capital gains taxes and make a positive impact on the Gardens. DBG accepts gifts of stock for membership payments, memorial or tribute gifts and all other philanthropic contributions.

Planned giving

Including the Gardens in your will or estate plans can be easy and will often result in tax-saving benefits for you and your heirs. Planned gifts, such as bequests and charitable remainder trusts, are an excellent way to show the Gardens how much you care while providing for your family at the same time.

Estate gifts

You can plant a garden that will bloom forever! Please consider including the Gardens in your will or estate plans. Making a planned gift can be easy and often results in tax-saving benefits for you and your heirs. Planned gifts, such as bequests and charitable remainder trusts, are an excellent way to show the Gardens how much you care while providing for your family at the same time.

Please call Jennifer Darling, at 370-8027, for more information or talk with your financial advisor about providing for the Gardens. Your generosity will help to further DBG's efforts in promoting horticultural, educational and cultural activities for the local community and beyond.

Denver Botanic Gardens

909 York Street Denver, Colorado 80206-3799

Address service requested





begins June 26 through July 12.

June

- Free Day at York Street Beginning Bonsai
- 2 *Sunrise Fitness Walk
 Bonsai Society Meeting
 The Perennial Advantage III
 Slithery Slimy Club
- 3 *Senior Early Morning Stroll for members only Learning to Combine Plants for Interest
- 3-14 Glass at the Gardens Stained Glass Show
- 4 Container Herb Gardening
- 6 3 G's Meeting
 Simple Soaps
 Traditional Medicines for Healing
 Annuals for Connoisseurs
 Flowers, Bees and Thee
- 7 Colorado Water Garden Society Water Plant Sale
- 5 Free Day & Drop-in Tour at Chatfield Arboretum
- 9 *Sunrise Fitness Walk Cactus Society Meeting
- *Sunset Garden Stroll Pamper Yourself
- 11 Rose Society Meeting
- 13 Rocky Mountain Orchid Judging
 Behind-the -Scenes Greenhouse Tour
 Rose Tour
 Those Wild, Wacky, Wonderful Weeds
 Tea Ceremony
- 14 Daylily Society Meeting
 Sunday Hikes at Chatfield
 Tea Ceremony

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909 YURK STREET DENVER, CO 80206-3751

- 15 Mycological Society Meeting
- 16 *Sunrise Fitness Walk
- 17 . NARGS Meeting Herb Society of America Meeting
- 18 Wildflower Tour
- 20 Denver Rose Society Rose Show Golden Gate Canyon State Park Wildflower Tour
- 22 The Spirited Woman
- 23 *Sunrise Fitness Walk
 Wildflower Tour
 Creating Healthy Soil
 Photography:Coloring the Landscape
- 25 *BirdHaus Bash Preview Party African Violet Society Meeting Wildflower Tour

26-7/12 BirdHaus Display

- 27 Wildflower Tour
 Perennials for Connoisseurs
 Rocky Mountain Horticulture II
 Tea Ceremony
- 27, 28 Rocky Mountain Bonsai Society Show
- 28 Tea Ceremony
- 30 *Sunrise Fitness Walk
 Wildflower Tour
 Ute—A Native American Way of Life

Note: Classes are in *italics*.

*Volunteers are needed. Call Dorothy Pate, 429-8602.

Green II humb News



Come Fly With Us!

BirdHaus '98 story on page 3



From the Top

News from the Executive Director

Most of you know by now that I have decided to leave Denver Botanic Gardens in order to become the Executive Director of the Arizona-Sonora Desert Museum. This decision was made much easier knowing that the "state of the Gardens" is wonderful in every regard. The new Romantic Gardens and renovation of the Conservatory are well underway and on target; the education programs get stronger every year; the events draw more and more people; membership and development programs are at record highs; the budget is balanced; and most of all, the staff is a truly extraordinary one that is committed and talented.

The Board is in very capable hands and has already launched a nationwide search for a new director. John Proffitt, whom I have worked with as a board member for the last 18 months as President of the Board, knows the Gardens well and is deeply committed to it. He will do an excellent job as interim Director coupling his love of the Gardens with his management expertise.

The volunteer core is simply the best of any botanical garden in the country and rivals that of the largest museums in the United States.

You, the members, through your support of our programs have made this one of the premier botanic gardens in the world.

Unfortunately, through this one column, I cannot thank everyone personally, who has made my tenure here the most exciting part of my career. However, I do want to thank the Presidents I have served with, Newell Grant, Dick Koeppe, Don Kany, John Proffitt, and Cal Cleworth. I have learned from all of them and am grateful for their support.

Most of all, though, I want to thank the members of the management team, Jennifer Darling, Carol Dawson, Joe Duran, Jim Henrich, Mary Johnson and Pia Smith. Along with my assistant, Pauline Donohue, these are the people that I have relied on and who have most made the Gardens a success in recent years. I am forever indebted to them.

Thank you all. It's been quite a ride!



The west pond in the Laura Smith Porter Plains Garden has been filled with water and landscaping is underway. The Romantic Gardens are in the initial stage of planting and all systems are operational including lighting, irrigation and pumps for the water elements. In the Conservatory, tree bark on the "false" banyan tree elevator is being installed. The pathways will be textured with natural features such as fossils, leaves and other plant parts. All mechanical and electrical systems are operational.



tions Jo!

Employee of the Month

June's employee of the month is Jo Estill.

Jo's great customer service and can-do attitude are reflected in every task that comes her way. She is always willing to take on added responsibilities above and beyond what is expected. Congratula-





The historic heirloom garden at Chatfield Arboretum.

During the first World War, the United States began sending large quantities of food to civilians and troops overseas. The sudden lack of food in markets caused many people to fear an impending national food shortage. Housewives worried about their family's health and many began to panic. People took matters into their own hands and started to plant gardens. These gardens were referred to as "war gardens" and provided families with valuable vegetables for cooking and canning. When the second World War rolled around, the gardens were once again called into action and, with the hope of a victory overseas, were dubbed "victory gardens."

Beside the historic Hildebrand farmhouse (built in ca. 1860), sits the Heirloom Vegetable Garden of Chatfield Arboretum. This plot contains examples of herbs and vegetables that were planted in the early 1900's. It is thought that many of these varieties are superior in taste and genetic quality to those of today. During the summer months, many of our volunteers can be found tending the garden and harvesting its bounty. Journey back in time by visiting our garden at Chatfield Arboretum.

Cover Story: Come Fly With Us!

This year we have another spectacular birdhouse and bird feeder display that you will not want to miss. If you have not had the opportunity to see the display in the past, make sure to fly by and catch a bird's eye view before July 12. Cast your vote for the People's Choice Award presented by United Airlines and you will be eligible to win 2 complimentary, round trip airline tickets to anywhere in the United States. The birdhouses will be on display indoors and out during regular Gardens hours: 9 a.m. to 8 p.m. Saturday through Tuesday, and 9 a.m. to 5 p.m. Wednesday, Thursday and Friday. Entry is included with general admission to the Gardens (free to members). For more information call 370-8021.



Plant species at risk

Recent articles in Denver newspapers have discussed the large number of plant species at risk in the world. At least one in three plant species in the United States is under the threat of extinction. Worldwide, the number of plant species at risk is 12.5% of the 270,000 known species. These numbers are alarming since human dependence on vegetation begins with the oxygen we breathe. Much of the food we eat comes from native plants that evolved on this continent such as corn, squash, beans and sunflowers.

Over 40% of medicines now prescribed in the United States contain plant-derived chemicals. As the basis of natural habitats, native plants also support recreation. Wildlife including birds, deer and bear, also depend on native plants. Some of these animals currently face extinction because of the loss of their native habitats and foods.

Conservation of native plant species requires cooperation among government agencies, private groups and the public. Denver Botanic Gardens has been a participating institution in the Center for Plant Conservation since 1987. DBG is also a member of the Native Plant Conservation Initiative. This organization brings together public and private organizations to promote plant conservation projects, conduct research, share information and help people understand how important plants are to their daily lives.

Each May, the Gardens helps to organize "Celebrate Wildflowers" with the Bureau of Land Management and the US Forest Service. The goal of "Celebrate Wildflowers" is to encourage conservation of native, local plant habitats.

The Gardens has also developed a major rare plant conservation program which has two primary focuses. The first is to determine the current status of each plant being studied. The second is to determine the critical life history stages of the population and combine this information with practical management of the habitat.

The Gardens works cooperatively with other federal and private conservation organizations to achieve these goals. Our field work this summer will take us to Capitol Reef National Park, Rocky Mountain National Park, Gunnison, Kremmling, Gypsum and a several other locations in Colorado. Our work will consist of monitoring existing rare plant populations, collecting life history data and conducting plant inventories. Long-term conservation plans for species at risk cannot be developed without a thorough understanding of the rare taxon and the habitat in which it lives.

Strolls and walkabouts

Families are invited to explore the Gardens on July 15 and experience a wide variety of entertaining adventures. Presented by the Bank of Cherry Creek, Family Walkabouts offer music, science, stories, theater and games from 6 to 8 p.m. Admission for members and non-members, adults and children, is \$6. Children five and younger are admitted free of charge.

Visitors can also enjoy Sunset Garden Strolls through the Gardens from 6 to 8 p.m. Wednesday, July 8 and August 5. Each evening will feature musical entertainment and special menu items for sale by Three Tomatoes Catering, DBG's official caterer. Visitors are also welcome to bring a picnic dinner.

Entertainment on July 8th will include Namaste, a five-piece contemporary folk group featuring strong harmonies and a variety of instrumentation. The Japanese Gardens will be filled with the hauntingly beautiful sounds of Bob Seigetsu Austreih on the Shakuhatchi flute. Karen Bilik, a local pianist, will supply entertainment for the Rock Alpine Gardens. Tina Gugeler will perform on the hammered dulcimer in the Home Demonstration Garden. Admission for members is \$4 for adults and \$2 for seniors and youth. The price for nonmembers is \$6.50 for adults and \$4 for seniors and youth.

For more information on either activity, call 370-8018.

Romancing the Sarden

As we anticipate the opening next month of the new Romantic Gardens you may be wondering, what makes a garden romantic? What criteria set these gardens apart and signify this special designation? The answer lies in the word 'romance' in its primary definition as a medieval tale of chivalry. Visions of damsels in distress and knights to the rescue may come to mind. Romance in this sense provides a fantasy of scenes and incidents that lie beyond the context of ordinary life. It becomes a celebration of the ideal harmony of life minus the chaos, tension and worry that intrude upon the daily routine.

This fantasy beckons the visitor towards a garden that will speak of enchantment and mystery. It promises to delight with the gradual realization of its combination of elements offering a sense of place apart from the reality of the everyday. These gardens will energize the senses. The fragrance of flowers and foliage; the sound of water; the touch and texture of plants, and visual impressions will define the romantic experience.



Entering the O'Fallon Perennial Walk, the un-mortared soft brick signals the passage toward the walled enclosure. Here, the first key view entices one into a garden room where the El Pomar Waterway Garden marks the enclosure of space. The sound of water and flow within the canal offers another key vista along the walled waterway, west to Anna's Overlook.

As one proceeds into the Schlessman Courtyard Garden and its central plaza, the exterior world is left behind. A variety of explorations become available. The path continues to the Fragrance Garden and an additional view of the waterway. The matching pavilions present a place for rest and contemplation. These twin sentinals with their octagonal architecture suggest a location removed from the ordinary. Their arched windows serve as lookout posts, framing a series of scenes within the seclusion of the garden. The Hildreth Shade Garden lies beyond, a destination of solitude and intrigue.

The individual garden rooms, with their dramatic visual elements, intriguing scents, lush foliage and water music combine to beguile and soothe the senses. The stucco walls define the space and identify its significance as a conceptual theme unique within Denver Botanic Gardens. The Romantic Gardens invite exploration and discovery of sensory treasures. Its beauty, mystery and seclusion promise a unique experience that will carry you a world away.



Japanese tree lilac illustration by Jayme Irvin.

Plant Portrait

Syringa reticulata

As visitors approach the enclosed garden rooms of the Romantic Gardens via the O'Fallon Perennial Walk, they will be welcomed by the distinctive features of Japanese tree lilacs (*Syringa reticulata*). These small ornamental trees are the largest of the lilacs and adaptable to a wide variety of locations.

The northern islands of Japan provide the native range for these sturdy plants. Tree lilacs bloom in late May and into June. The showy white panicles of flowers are 6"-12" long. Feathery plumes offer a soft texture and a scent more reminiscent of privet than lilac, that is appropriate at the entry of the Fragrance Garden.

Reddish-brown bark highlighted with horizontal lenticels is another outstanding ornamental feature of tree lilacs. It is a handsome characteristic that provides distinction and is especially apparent in the winter landscape, extending the seasonal interest of these graceful small trees.

Fragrant Plants

The scent of plants is one of their greatest gifts. While all plant parts may have fragrance, it is the flowers that most people check first for aroma.

As with other sensory experiences, individuals vary in their perception of fragrance. Certain fragrances that are pleasing to some may evoke neutral or even negative responses from others and it's not uncommon for some floral scents to be imperceptible by certain people.

Fragrances in flowers may be delicate or heady. Many flowers produce scent throughout the life of the blossom. Others are fragrant at the time of day when their pollinator is active. Such is the case with flowers that are pollinated by moths; they offer most of their fragrance at night.

Many kinds of plants are grown for their fragrance. Spring bulbs seem to be particularly aromatic. Tulips, narcissus, hyacinths and a host of bulbs bear strong scents that help to herald the arrival of the season.

Two garden annuals frequently planted for their scented blossoms are nicotiana and heliotrope. Unfortunately, hybrid varieties often seem to lose the delightful fragrance of the species from which they are derived, so "sniff before you buy" is a good policy if scent is important to you.

Numerous perennials and summer bulbs are fragrant too. The popular peony, iris, and lily are all known for their evocative aromas. Phlox, monarda, carnation and oenothera are also



Nicotiana blossoms emit a wonderful fragrance.

grown for their fragrance. Plants grown for their aromatic foliage are rosemary, marigold, scented geranium and mint.

Scented flowers are common on many landscape shrubs. Is there anything quite like the fragrance of lilacs in May? Mockorange, spirea, buddleia, daphne, rose, witch hazel and viburnum are others with fragrant blossoms. Among trees, plums have sweet-scented flowers, but there is little that can compare to the intoxicating aroma of a linden tree in full bloom on a warm summer evening.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.

Q. Which raspberries grow best in this area?

A. Raspberries prefer a well-drained, slightly acidic soil. Good fruit production requires that the plants receive from one to three inches of water each week. The red raspberry (*Rubus idaeus*) is the hardiest and grows well along the Front Range. Domestic raspberries are classified as either summer bearing or fall bearing. The summer bearers produce fruit in June from canes that grew the previous year. The canes flower once and should be removed after the fruit is harvested. Summer bearers produce long canes which may require staking or support to avoid breakage by winter snow and

wind. Varieties that produce in summer include 'Latham', 'Boyne', 'Laura' and 'Honey Queen'. Fall varieties bear on new growth produced each summer. Those canes also produce a light crop early the following year and then may be removed. 'Heritage', 'September Red', 'Pathfinder', 'Autumn Bliss' and 'Goldie' are among the fall producing varieties.

Q. How can I control bindweed in my garden?

A. Field bindweed (*Convolvulus arvensis*) is perhaps our worst weed and one of the most difficult to control. Not only is it perennial, but it also has an extensive root system that readily resprouts after the

tops of the plants are removed. Hand-pulling this wild morning glory is usually not successful. General herbicides such as Round-up can be effective but care must be taken to avoid contact with ornamental plants. Broad-leaf weed killers such as 2,4-D are useful on lawns as the turf will be unaffected. Both types of chemicals may require several applications over a period of years. Read and follow the instructions on the labels carefully.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message anytime at 370-8068 for a return call.



Mile High Daylily Society show, July 11

The Mile High Daylily Society annual show features the latest and greatest cultivars of the American Hemerocallis hybridizers. The show will run from 1 to 4 p.m. on Saturday. For information, call Jayme Irvin, 825-3384.

Iris Society Region 20 sale, July 18, 19

The Iris Society Region 20 Sale will be held Saturday from 10 a.m. to 3:00 p.m. and Sunday from 9 a.m. to 3 p.m. The sale is open to all gardeners and will feature numerous iris varieties including standard dwarf bearded, miniature dwarf bearded, species and intermediate bearded, aril and arilbred and boarder bearded. For information, contact Rob Stetson, 733-5709.

Watercolor show, July 20 to August 1

The 30th annual show will feature high quality watercolor artwork, many with a floral orientation. The juried show will include artwork created by Colorado Watercolor Society members and will be judged by D.J. Donovan-Johnson, an award-winning artist. The Society will have hundreds of unframed pieces available for sale. The show will open July 20 at 1 p.m. and will be open daily during regular Gardens hours. A special reception featuring food and music is planned for July 24 from 6 to 8 p.m. For information call Mary Lou Akers, 232-4718.

Entrance to the above shows and sales is included with general gate admission.

Vail gardens tour, July 12

Explore five of Vail's most exquisite residential gardens from 9 a.m. to 3 p.m. on the first annual Vail Garden Tour. Call 970-476-0103 for more information on the \$15, three-hour tour.

Fitness Walks every Tuesday in July

Increase your fitness level this summer with a weekly morning fitness walk through the Gardens. DBG will open early every Tuesday morning through August 25 from 7 to 8:30 a.m. Early morning risers can take a walk through the ever-changing 23 acres and get fit in a safe area while enjoying the beautiful scenery. Admission is free to members and the general public.

HOW TO READ THIS CALENDAR

Bold red type = Gardens events

Bold black type = Plant Society events Regular black type = Classes

FOR MORE INFORMATION:

Gardens events 303.370.8187

Plant Society events 303.370.8097 Classes 303.370.8020



Free Day at York Street Mycological Society Meeting Arboretum Kids Club:

Understanding Insects*



7

Sunrise Fitness Walk

Bonsai Society Meeting
Mt. Goliath Wildflower Tour*
Native Plants & Wildflowers
the Landscape*



12

Japanese Tea Ceremony* The World of Tea* Vail Garden Tour* 13

Beginning Bonsai* Floral Arranging* 14

Sunrise Fitness Walk

Cactus Society Meeting
Mt. Goliath Advanced Wildflo
Feng Shui & Classical
Chinese Gardens*



19

Iris Society Region 20 Sale

Summer Rose Care*
Sunday Hike at Chatfield*
Art of the Crevice Garden
Demonstration*
Art of the Crevice Garden
Lecture*

20

Garden Tour

(Circa Botanica and Four Seasons members only)

Colorado Watercolor Society Show

(runs through August 1)
A Walk on the Wild Side*

21

Sunrise Fitness Walk

Bonsai Society Workshop

Summer Flower Arranging*
Arboretum Kids Club: Anima
at Chatfield*

Mt. Goliath Wildflower Tour*



26

Japanese Tea Ceremony*
Introduction to Backyard Composting*

27

28

Sunrise Fitness Walk

Mt. Goliath Wildflower Tour*



* Preregistration is required for all classes.



Denver Botanic Gardens

Attn: Development Department

909 York Street

Denver, CO 80206

AddressState _	Mr. / Ms.	Denver Botanic Sardens will be pleased in of the person being remembered. Please in	Jam pleased to enclose this gift of \$
Zip		Denver Botanic Sardens will be pleased to acknowledge your gift to the honoree or to the family of the person being remembered. Please indicate to whom we should send notice of this gift.	in memory of:



Honor or remember family, friends and loved ones.

29

omes

New Members' Party

members only Aromatherapy: Part III at Chatfield* 30

Mt. Goliath Wildflower Tour*

31

Summer Concert

Fairfield Four Tour to ForestEdge Gardens*



For a schedule of DBG classes for children please see page 11.

Members annual picnic

DBG members are invited to the annual members picnic, "A Flowering Fiesta," on Thursday, July 16 from 6 to 8:30 p.m. New members are invited to come at 5:30 p.m. for a special tour of the Indigenous Gardens.

Mariachi Vasquez, a seven-member mariachi family, will spice up the evening with native tunes. Children can enjoy a special craft project and complimentary ice cream. Families are welcome to bring a picnic dinner or order box dinners prepared by Three Tomatoes Catering.

Because parking is limited around the Gardens, members should park at DBG's off-site lot, the Glendale Target at 4301 E. Virginia Ave. and ride the free shuttle bus to and from the picnic. Buses will run from 5:30 to 9 p.m.

The price is \$7 for adults, \$4 for children older than two and free for children two and younger. Reservations must be made by July 10. Call 370-8187 to make your reservation with a Visa or Master-Card. Or, look for your invitation and reservation form in the mail.

The boy and a frog

The focal point of the west section of the herb garden is the statue The Boy and a Frog, by Elsie Ward Hering (1871-1923). The artist was born in Missouri and grew up in Denver. Her art studies led her to Paris where the statue was created in 1898.

It was exhibited at the Society of American Artists there and later at the Philadelphia Academy of Fine Arts. The statue traveled to Denver in 1903 for the opening of the art gallery of the Denver Public Library and won a medal at the St. Louis World's Fair the following year.

Subsequently, the sculpture was in New

York, where Miss Ward had a studio. She married co-worker Henry Hering in 1910. Upon her death, the plaster cast of the sculpture was stored by her family. Her niece, Louisa Ward Arps, gave this concrete cast of the sculpture to DBG in 1966.

Have you seen our new membership brochure?

Not only is the brochure full of lovely colorful pictures, but it also points out items that we hope all members are aware of: our active plant research and conservation program, Mr. McGregor's Garden for children, public community gardens and our fine education program.

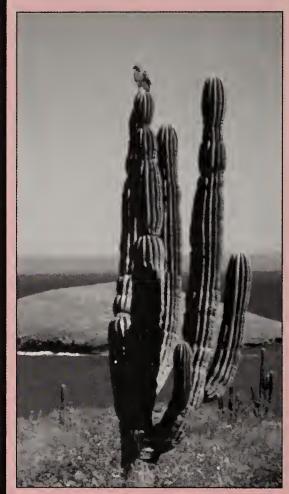
And if you look over the benefits for all members, you will see the list of supporters giving discounts has grown, so your DBG membership has become even more beneficial to you! And check out the Botanist Club benefits (good also at higher levels of membership) because the discounts there are even more substantial—15% on nursery stock at Birdsall & Co.; 15% at Echter's, Green By Nature, and the Smith & Hawken store; 20% at Bouquets and Fantasy Orchids. (A new listing of merchants who give DBG discounts is being created. Look for it when you come to the Gardens.)

Urge your friends to take a brochure and join the Gardens today!





DBG TRAVEL ADVENTURES



Denver Botanic Gardens members who participated in last February's travel program enjoyed incredible scenes such as this secluded bay near La Paz, Mexico. Call DBG travel coordinator, Pam Rathke, at 370-8051 for more information on upcoming trips to places including Belize, Spain and Portugal, Alaska and Southern California.

Senior strolls

DBG senior members are invited to bring a guest and stroll the Gardens on July 1 and August 5 from 7 to 9 a.m., courtesy of Bank of Cherry Creek. Complimentary coffee and rolls will be provided on a first-come basis. No reservations required.

Security Life brings music to DBG

Security Life of Denver has graciously granted Denver Botanic Gardens \$25,000 in support of "The 1998 Summer Botanic Gardens' Concerts Series" again this year. As the Presenting Sponsor of the Series, Security Life of Denver has made an important investment in helping us bring the 18th-annual summer Garden Concerts to our community. For more than 20 years, Security Life of Denver has been a dependable supporter of the Gardens, contributing as both a corporate member as well as event sponsor. The Gardens is thankful to have corporations such as Security Life of Denver in our family of members and sponsors.

Denver Botanic Gardens' Committee of the Fête des Fleurs requests the pleasure of your company on Thursday, the thirteenth of August Nineteen hundred and ninety-eight at half past six o'clock. Join us for dinner and dancing and the formal dedication of the new Romantic Gardens. Black Tie The favour of a reply is requested by August 7, 1998 1005 York Street ~ Valet Parking, 9th and York Call Amy Capra at 331-4048 for more information.

Special thanks to Plant Sale Preview Party contributors

Joy A. Carlson Cassagne Teissier-Fine French Wines Billee Madsen Neva Olson Mary Starr Turner Art Gallery Sandra J. Walling Wynkoop Brewing Company

Memorials and Tributes

In memory of Mrs. Nora Hellbusch Ms. Joyce P. Wilson

In memory of Vera Evenson's mother Marilyn Shaw

In memory of Marie Schriner

Betty Seale Ronald R. Pomeroy Stephen C. Harman Vicki J. Morse Jan Rains Paula Schuler Mr. and Mrs. Steve Brown Joan Cook

XETA Corporation Suzy Frey Sherrie and Jim Butler Alan and Mary Jo Kiedler

Mr. and Mrs. Ellis Dodson

Mr. and Mrs. Donald E. Reigel Mr. and Mrs. Ken M. Reinig

Mr. and Mrs. Paul A. Jankoviak

Robin Reinoehl In memory of Bernice "Pete" Petersen Stephen Blecher In memory of Kenneth J. Erjavec Janet M. Erjavec



Pave a path

You can now purchase a named brick on the Romantic Gardens walkway. Either leave your own name at the Gardens permanently or recognize someone special. Bricks will be located near the new waterfall and reflecting pool. The bricks will last forever and DBG will benefit today. Call Rosalyn Zigmond at 370-8030 to place your order! Honor or remember family, friends or loved ones and help the Gardens grow in their name.

A birthday, anniversary or special acknowledgment makes a beautiful tribute.

> Please call 370-8055 for more information.



Remember Denver Botanic Gardens in your will, trust or life insurance policy. Call Jennifer Darling at 370-8027 for information.



Forest guides needed

Come see the forest and the trees... and help young people learn more about both!

The "Deciduous Forest" theme tour premiers this fall, following DBG's very successful spring "Conifer" theme tour. Third through sixth grade students will explore nature through classroom investigations and interactive guided tours of the Gardens. Guides are needed.

If you love kids and trees, you could be a great guide. There's no need to be an expert. We'll teach you what you need to know. The training session will be held on Thursday, September 10 from 10 a.m. to 2 p.m., followed by a practice session on Friday, September 11. Tours will be conducted Thursday mornings and afternoons throughout the fall.

Call the education office at 370-8020 to sign-up for the training or to schedule your school group for a tour.

Teacher assistants needed

The adult education program is looking for enthusiastic, hard-working people to assist in our classes. If you enjoy taking gardening classes, know how to use a slide projector and copying machine, and are willing to help a teacher, you can be trained to assist in classes. In return, you can enjoy the class free of charge. Be a part of this popular, successful program. You'll be helping the Gardens while learning more about your favorite pastime too!

A mandatory training session, including lunch, will be held on Saturday, August 22 from 9 a.m. to 1 p.m. in Mitchell Hall. If you are interested, please call Paula Ogilvie, 370-8041, to register.



Why are plants fragrant?

There are two primary reasons plants have fragrance. One is to attract insects.; the other is to repel them. Insects are the primary pollinators of flowering plants. Their lives are so intertwined that many plants will not survive without their pollinators. The same is true for the pollinators if the plant is not available. Fragrance is one strategy to bring pollinators to a flower.

One of the most obvious examples of this strategy are night-blooming, fragrant plants. These plants are most typically white and usually open in the evening and closed by morning. They are most typically pollinated by moths. The intense fragrance and the white flower are two ways the moths are attracted to the flowers. Think of our beautiful, native jimsonweed (*Datura wrightii*). It has a subtle fragrance and a huge, white trumpet.

On the other hand, some plants have fragrance in their leaves and stems primarily as a deterrent to browsing animals. Plants such as lavender are rarely disturbed by insects and mammal browsers. Conifers are another example of fragrant plants that are only reluctantly browsed by mammals. The intense fragrance just doesn't taste good.

How have we used fragrant plants?

The history of people using fragrant plants goes back at least as far as history was recorded, most likely much longer. Myrrh (*Balsamodendron myrrha*) was a powerful and lasting scent in the civilizations of the Tigris and Euphrates valleys in Africa. Ancient Egypt, Greece and Rome used scents from plants for religious purposes and daily cosmetics. In China and medieval Europe, flower petals were strewn on the floors during celebrations. Early gardens laid out in squares or rows were filled with plants that had fragrance. It was only during the naturalistic gardening era in Britain during the 19th century that fragrant flowers fell out of their place of esteem in the garden. Fortunately, fragrant plants are once again welcomed into the garden.

Sources from the Helen Fowler Library used for this article:

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Lacey, Stephen. Scent in Your Garden. Boston: Little, Brown & Co., 1991. SB 454.3 .F7 L33 1991

Lovejoy, Ann. Fragrance in Bloom: Cultivating the Scented Garden Throughout the Year. Seattle: Sasquatch Books, 1996. SB 454.3 .F7 L67 1996

McDonald, Donald. Fragrant Flowers and Leaves. London: Frederick Warne & Co., 1905. SB 454.3 F7 M2 1905

Verey, Rosemary. The Scented Garden. New York: Van Nostrand Reinhold, 1981. SB 454.3 .F7 V4 1981.0

Wilder, Louise Beebe. The Fragrant Garden: A Book About Sweet Scented Flowers and Leaves. New York: Dover Publications, 1974. SB 454.3 F7 W48 1974



Photo courtesy of Marty Caviano, Boulder Daily Camera

Kids with dirty hands

Mr. McGregor's Pick and Plant Garden is up and running. Families can stop by from 10 a.m. to 2 p.m. on summer weekends and experience live-action gardening. Each child can pick one thing and plant one thing in our new garden area. Located north of the parking lot in the Morrison Community Gardens, Mr. McGregor's Garden is staffed by volunteers who will show you which delicacies to harvest each day.

Summertime Kids means summertime fun

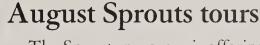
Younger members can get to the root of the matter as they explore a variety of exciting natural history classes at both the York Street and Chatfield locations. Taught by enthusiastic, experienced teachers, the classes feature hands-on learning for children ages 3-11. For more information, including prices, call 370-8020 or 370-8019.

York Street classes

Date	Class	Age
July 6-7	I Was a Teenage Vegan	Teenagers only
July 7-10	Passport to the East	Grades 1-3, 4-6
July 13-15	Kitchen Botany	Grades 4-6
July 14-17	Rock and Roll	Grades 1-3, 4-6
July 20-23	Earthly Art	Grades 1-3. 4-6
July 27	Botanical Treasure Hunt	3-Pre-K
July 27-30	Bugs! Bugs!	Grades 1-3
August 3-5	Daisies Dancing, and Drums	Grades 1-3

Chatfield classes—Arboretum Kids Ciub

Classes Albertain inas Clas	
Wetlands	Ages 6-9
Understanding Insects	Ages 6-9
Understanding Insects	Ages 6-9
Animal Homes	Ages 6-9
Animal Homes	Ages 6-9
	Wetlands Understanding Insects Understanding Insects Animal Homes



The Sprouts program is offering DBG's youngest members (preschool to Grade 2) and their parents a special treat: guided tours of Mr. McGregor's Garden! Originally designed for school groups, the Sprouts program opens its arms to family groups during the month of July. To reserve a spot for you and your wee gardeners to pick, plant, smell, touch and investigate plants, call the education office at 370-8020. The guided tours are free and are offered at 10 a.m. on the following dates:

July 2	Guided	Sprouts Tour #1	
July 9	Guided	Sprouts Tour #2	
July 16	Guided	Sprouts Tour #3	
July 23	Guided	Sprouts Tour #4	
July 30	Guided	Sprouts Tour #5	

Helping teachers teach

Several teacher enhancement programs are scheduled for the months of July and August. Of special note, the Environmental Science Certificate Program offers graduate level recertification credit through the Colorado School of Mines. The program is directed toward K-12 teachers, naturalists and park and nature center interpreters, interested in enhancing their knowledge and skills in environmental education. For more information and to register for any of the courses, call 370-8019.

Environmental Science Certificate Program Courses

July 7

Environmental Education in an Urban Setting

July 9-10

Alpine Ecosystems

Additional Teacher Enhancement Courses

July 16, 23

Museum and Botanic Gardens

August 15

Project Learning Tree for Secondary Teachers



DBG's Gift Shop has a delightful selection of new floral-patterned umbrellas just in time for summer showers.



WANTED: The DBG Research Department is in need of a 4x4 vehicle to be used for the endangered plants research program. The vehicle must seat five adults and have a cargo area. If you have information or are interested in making a tax deductible donation of a vehicle, please call Anita Livingston, DBG Development, at 303-370-8185.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

Address service requested

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Edited by Julie Behrens Designed by Julie Rudofsky

General information	331-4000
TDD	370-8032
Dr. Green plant information	370-8068
Tues. and Thurs., 1 to 3 p.m.	
Plant <i>talk</i> (24-hour)	1-888-666-3063
recorded plant information	
Gift Shop	331-4009
9:30 a.m 4:30 p.m.	
Helen Fowler Library	370-8014
Sun. through Sat., 9 a.m. to	5 p.m.
Closed major holídays.	

Offices

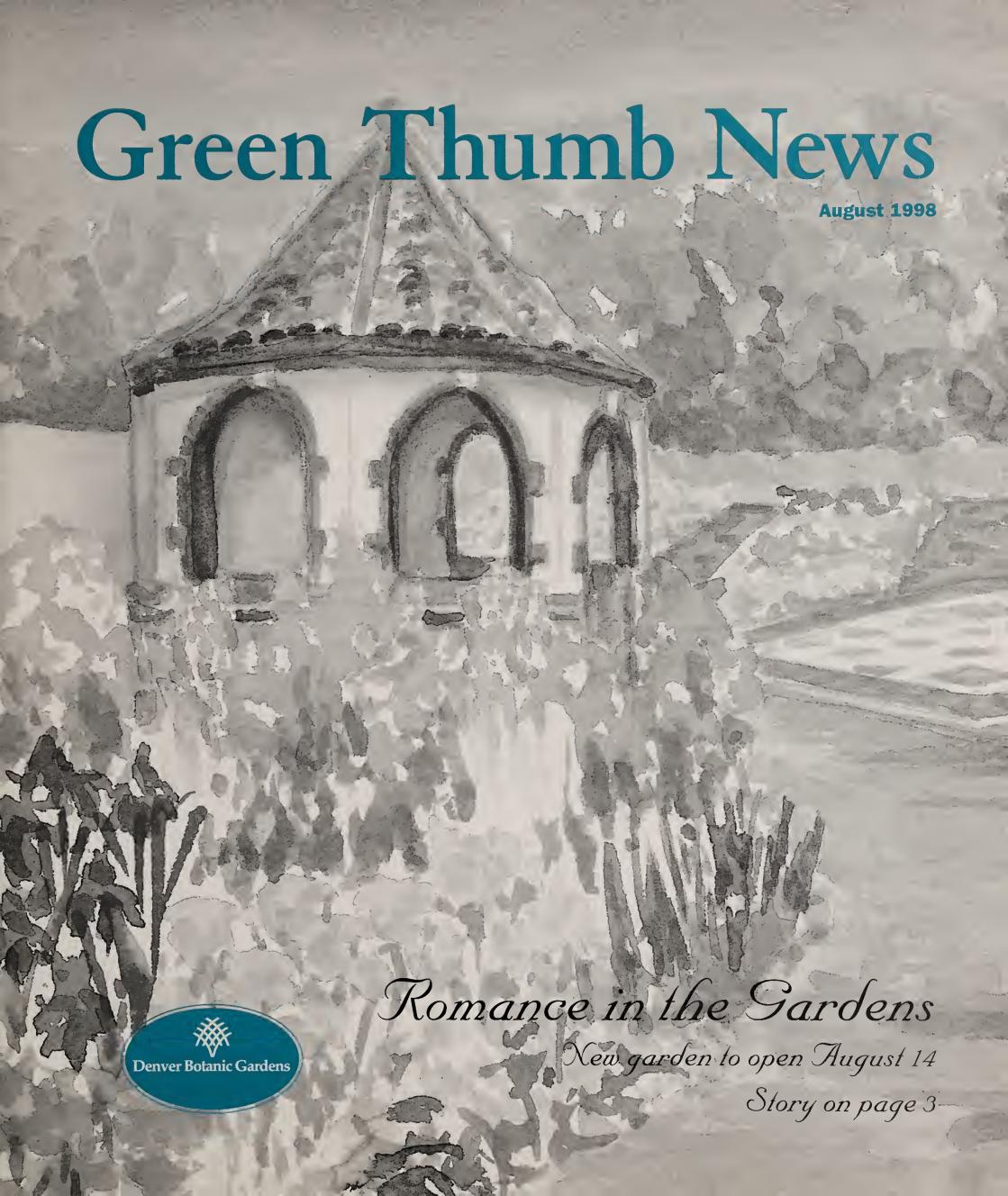
Mon. through Fri., 8 a.m. to 5 p.m.	
Class registration	370-8020
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Membership services	370-8029
Security, emergencies	370-8017
Special events information	370-8187
Development	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: "House As Symbol of Itself" by Bruce Yoder

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From the Top

News from the Executive Director



Dear Friends of DBG,

I know you all join me in thanking Rick Daley for six and a half wonderful years as Executive Director at Denver Botanic Gardens. Under Rick's fine leadership and along with a very committed staff, wonderful volunteers and a very supportive Board, the Gardens has enjoyed remarkable success. Equally important is the support we receive from all the friends of the Gardens.

1998 is an exciting year as we have completed the beautiful Romantic Gardens and renovated the West Pond and visitor parking lot. In November, we will have a gala event celebrating the

reopening of DBG's signature garden, the Conservatory. Also, the long awaited restoration of the Waring House is well underway.

I am delighted to serve as your Interim Executive Director and want to invite you to experience your Denver Botanic Gardens.

John Proffitt, Interim Executive Director

Editor's note: John Proffitt has been with DBG for five and a half years. He has served as President of the Board of Trustees for the last year and a half — a position from which he resigned in order to take over the post of Interim Executive Director.



If you stroll the gardens this month, you'll notice that the structural components of both the West Pond and Romantic Gardens projects are finished! Stop by and witness the transformation to beautiful new gardens as our horticultural staff completes the planting in both areas. Out of view, the Conservatory project is continually progressing. The mechanical and electrical systems are operational and being tested, and the banyan tree is taking shape. Take a peek through our construction window located in the lobby court!



July's employee of the month is Bronwyn Chaney, DBG's Membership-Development Database Coordinator. With over 15,000 DBG members, it is essential that we maintain accurate, updated records.

Bronwyn is an enthusiastic and conscientious employee, delivering only the best for the Gardens. She always pitches in when others need help and it is a pleasure to work with her.

Thank you and congratulations!



Things are buzzing

As gardeners and nature lovers, we owe much to our insect pollinator friends. Without them, most of our plants would not be able to reproduce and our efforts to cultivate the soil would be in vain. We would also miss out on the joys of fresh honey and pure beeswax candles. To show our appreciation for these little wonders, the staff at Chatfield Arboretum has dedicated an entire exhibit to educating the public about insect pollinators, in particular, honeybees. This exhibit consists of informative displays, historic and modern beekeeping equipment and an antique honey extractor. An observation beehive colony is kept by local beekeeper, Jerry Webb. Also, the "Bee Room" is open to the public every day of the year.

In addition to this exhibit, a large colony of resident bees is kept by another local beekeeper, Paul Hendricks. These bees have the extremely important job of pollinating the 4.5-acre pumpkin patch. The honey extracted from the hives is bottled by staff and volunteers, and sold as a fundraiser at the DBG Gift Shop, in the Aboretum's administration building and at all Arboretum special events.

If you have a budding interest in insect pollinators, several classes are offered at Chatfield Arboretum. For those interested in the science of bees, wasps and hornets, check out "Flowers, Bees and Thee," an informative class taught in the summer by beekeeper, Nancy Ricciardi. Jerry Webb offers a class on beekeeping in the early spring. A beeswax candle-rolling class is taught by Naturalist, Sue Boersma, in the fall. Please call 973-3705 for information.

Cover Story: Romance in the Gardens

The highly anticipated opening of the Romantic Gardens will take place on August 14. The 1.3-acre garden consists of a series of elegant gardens with distinctive features designed to excite the visual and olfactory senses, to provide new horticultural displays and offer new educational opportunities.

The overall philosophy of the garden complex is a western flavor, or aroma as the case may be. The garden will display plants that are suitable to grow in the Rocky Mountain region, that tolerate low water, hot, dry summer days and intense sunlight in both summer and winter. Although the gardens will have a native flavor, the plants will be displayed in a cottage garden style amidst several water elements including a grand waterfall, waterway and pool.

All members and visitors are invited to visit Denver Botanic Gardens on August 14 for a special evening of romance in the new gardens. The gardens will be open to the public for festivities beginning at 7 p.m. until 10 p.m. Please bring a companion and enjoy music, desserts, Colorado wine and candlelit romance in the moonlit setting of the Romantic Gardens.

Tickets are \$6 for members and \$10 for the public. Please call 370-8187 for more information and reservations. Tickets can also be purchased at the main gate.

The celebration of the new gardens will continue throughout the weekend of August 15 and 16 with children's craft activities, tours and staff present to answer questions.

Explore the best of Denver without driving

The Cultural Connection Trolley is the most convenient way to see the best of Denver without the hassles of parking, traffic and unfamiliar territory. Denver Botanic Gardens is one of 12 stops made by the trolley, which can be ridden all day for only \$3. Passengers can get on and off as often as they like to tour a museum, go shopping, eat lunch, and, of course, visit Denver Botanic Gardens.

Cultural Connection Trolleys run every 30 minutes from 9:30 a.m. to 7:30 p.m., until September 7. For more information, call RTD at 299-6000.

Farewell to Rick Daley

On Thursday, July 2, the staff at Denver Botanic Gardens bid a fond farewell to Executive Director, Rick Daley. He has been selected as the new Executive Director at the Arizona Sonora Desert Museum in Tucson. Rick will be greatly missed for his many contributions toward making DBG the sixth largest botanic garden in the country.

Since joining the staff in 1991, Rick has lead DBG's transformation to a stronger, more united institution. Several new programs were initiated during his tenure. The Gardens' education programs were dramatically expanded and DBG began offering certificate programs in Rocky Mountain Horticulture, Horticultural Therapy and Environmental Education. DBG tripled money raised in the development program and membership reached an all-time high.

DBG was also reaccredited by the American Association of Museums, making it one of only twelve botanic gardens nationwide with this prestigious honor. Also, thanks to Rick's leadership during the 1994-96 capital campaign, the York Street site was dramatically improved by the addition of the WaterSmart Garden, the O'Fallon Perennial Walk, the expanded parking lot and the new Romantic Gardens. These accomplishments, and many more, were developed by Rick in cooperation with trustees, staff and generous donors.

Rick has been a pillar of support for all who worked with him. His leadership and compassion will surely be missed. Please join the staff and trustees in wishing him all the best as he meets new challenges and successes in Tucson.



A new voice for DBG

Putting the word out on what's happening horticulturally at DBG is the responsibility of Harriett McMillan, Horticulture Information Specialist. In this newly created position, McMillan is committed to educating both local and national audiences about horticulture and DBG. McMillan will spend most of her time writing and working with the media. With over 20 years of experience in horticulture, McMillan has excelled in many areas of the field. She is a frequent contributor to the *Denver Post* and many other publications, has taught numerous classes, managed perennial sales at Echter's and is a former Master Gardener with a Colorado Nursery Certificate.







A Romantic Palette







This is the final article detailing elements of the new Romantic Gardens. Following is information about the plants that can be found in these gardens.

The Waterfall Court contains four matching Japanese tree lilacs (Syringa reticulata) underplanted with 'Starburst' ice plant (Delosperma floribundum) and 'Colorado Gold' gazania (Gazania linearis) bordered with 'Elijah's Blue' blue fescue (Festuca glauca). This garden room is also graced with a beautiful waterfall providing the subtle sound of water splashing into a pool. Notice how the colors of the plantings complement the glazed wall tiles and the stucco walls.

In the Colorado Springs Waterway Garden we achieve western flavor with six matching 'Select' mountain ash (Sorbus aucuparia) and 'Elijah's Blue' blue fescue (Festuca glauca) in a semi-formal design, interplanted with plumbago (Ceratostigma plumbaginoides) (underplanted with Narcissus 'Abba') and sun rose (Heliauthemum nummularium 'Yellow') (underplanted with Narcissus 'Thalia'). The waterway is edged with amethyst fescue (Festuca amethystina). The far west end of this garden is the east slope of Anna's Overview, covered

with stonecrop (Sedum spp.) and hen and chicks (Sempervivum spp.) cultivars and yellow ice plant (Delosperma nubigenum).

As you meander from the Waterfall Court into the fragrant section, you first encounter another formal area, the Schlessman Plaza bedecked with beautiful terra cotta pots on the buff and green sandstone. The plaza is flanked by four matching weeping crabapples (Malus 'Red Jade'). Adjacent are two formal beds flanked with containers and planted with Perilla frutesceus and Zinnia 'Dreamland Mix'. The focal point of the plaza is a huge urn overflowing with annuals and perennials.

The largest of the gardens is the Fragrance Garden, filled with plants exuding spicy, perfumy, pungent and resinous as well as foul aromas. The overall design is that of a cottage garden with all season appeal. The predominant colors are pastel pinks and blues.

Significant trees in this garden include: golden horn tree (Xanthoceras sorbifolium), yellowwood (Cladrastis kentuckea 'Rosea'), Serbian spruce (Picea omorika), crabapple (Malus 'Louise') and tulip tree (Liriodendron tulipifera). Shrubs of note include: viburnum (Viburnum

lentago), lilac (Syringa meyeri 'Palibin'), butterfly bush (Buddleia davidii 'Petite Indigo'), rose (Rosa 'Eden Rose 88'), rose (Rosa 'Ayrshire'), rhododendron (Rhododendron 'Northern Lights') and fernbush (Chamaebatiaria millefolium). Unusual perennials to look for include: California tree poppy (Romneya coulteri), bee-balm (Monarda bradburuiana), lamb's ears (Stachys byzantina 'Primrose Heron'), lilac salvia (Salvia verticillata 'Alba'), mullein (Verbascum 'Silver Candelabra') and rhubarb (Rheum x cultorum 'Canada Red'). The large and wonderfully fragrant waterlily (Victoria 'Longwood Hybrid'), adorns the water lily pool.

The smallest of the gardens is the Hildreth Shade Garden. Its central feature is a shingle oak (Quercus imbricaria), underplanted with native shade-tolerant perennials and shrubs including: kinnikinick (Arctostaphylos uva-ursi), Oregon grape (Mahonia repeus) and Colorado blue columbine (Aquilegia caerulea).

This sampling of the plant palette illustrates the diversity and allure of these gardens. Plan to visit during the public opening on Friday, August 14.

Jim Henrich, Director of Horticulture



Lysimachia ciliata illustration by Jayme Irvin.

Plant Portrait

Lysimachia ciliata

King Lysimachos, an ancient king of Thrace, lends his name to this month's featured plant. Translated from Greek his name means ending strife, and 'loosestrife' designates a significant number of perennials. Lysimachia ciliata 'Purpurea' has distinctive wine-red stems and leaves that set it apart from other members of the genus. The richly colored foliage has an iridescent sheen that further enhances the depth of its color.

The burgundy-hued foliage of *Lysimachia ciliata* is used repetitively in the borders of the O'Fallon Perennial Walk. Yellow star-shaped flowers appear in summer. This vigorous perennial is easy to grow in sunny or partly shaded areas in moderately moist soil. Its distinctive color and form add much to the tapestry of the garden.



O'Fallon Perennial Walk.

Third-year charm

The evolution of a garden is both intriguing and enlightening. When first planted, the lonely aspect of plants at spacious intervals challenges our sense of aesthetics. There is eager anticipation of the finished product — a garden perfect in all manner. The O'Fallon Perennial Walk, which is entering its third season, is just now fulfilling the promise of the initial garden design.

A mix of shrubs, vines, bulbs, perennials and annuals provides the structure of this lush garden. A border of deciduous shrubs provides a colorful flower and foliar scene in front of a soft-textured backdrop of Rocky Mountain juniper. Shrub roses complete the connection linking the middle of the border to the rear while groups of perennials steadily grow to the girth that will stand them

shoulder-to-shoulder in defining masses. The large architectural features of American cow parsley (*Heracleum spondylium* ssp. *montanum*) and tree scabiosa (*Cephalaria alpina*) demand attention as they preside over the west border.

Although flowers are prominent in the border throughout the season, the foliage contributes a subtle design element that unifies the garden. The burgundy tones of purple-leaf sandcherry (*Prunus x cistena*), smokebush (*Cotinus coggygria*) and red leaf Japanese barberry (*Berberis atropurpurea*), add rich, burnished color to the developing tapestry.

This is a garden for all seasons. Enjoy its late summer richness and imagine the beauty that lies a season beyond. The O'Fallon Perennial Walk promises to invite and enchant for years to come.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.

Q. Asters have been recommended for fall color in my perennial garden. Which ones grow well here?

A. Several species and cultivars of the genus Aster thrive in the region and are the workhorses of the perennial border in late summer and fall. (These should not be confused with the annual China-aster of the florist trade, which belongs to the genus Callistephus.) Frequently called Michaelmas daisies, showy garden hybrids have been bred from several species, most of North American origin. Flowers of purple, blue and white predominate, but pink and red shades are also available. The fall flowering types are mostly marketed as selections of New England aster (Aster novae-angliae) or New York aster (Aster novi-belgii). These

plants thrive in sunny locations in well-drained soils of average fertility. Pinching the plants early in the season will promote a fuller floral display. Among the New York asters look for the cultivars 'Professor Kippenberg' (blue flowers), 'Marie Ballard' (lilac flowers), 'Alert' (crimson flowers), 'Snow Cushion' (white flowers). 'Alma Potschke' (pink flowers) and 'Purple Dome' (purple flowers) are outstanding New England asters.

Q. The roots of my tree are exposed and growing along the top of the ground. What should I do?

A. It is surprising to many people to learn that most of a tree's root system develops in the upper 12 to 15 inches of soil. Trees that are planted in heavy clay soils, or soils that are compacted and poorly aerated may develop visible roots along the ground under the tree canopy. Not much can be done to alter this condition.

Attempting to remove exposed roots or covering them with a layer of soil is likely to adversely affect the health of the tree. If the problem is extensive, the best solution may be to replace the grass with a shade-tolerant ground cover or a mulch that will cover the roots yet allow good air and water penetration.

"Dr. Green" will answer your plant and gardening questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message anytime at 370-8068 for a return call.

August

Sunset Garden Stroll, August 5

Visitors can enjoy an evening stroll through the Gardens from 6 to 8 p.m. and listen to musical entertainment throughout the grounds. Three Tomatoes catering will have special menu items for sale or you can bring your own picnic dinner. Admission for adult members is \$4; seniors and youth, ages 6-15, are admitted for \$2. Children five and younger are admitted free. The Sunset Garden Stroll is presented by Bank of Cherry Creek. Call 370-8187 for more information.

Daylily Society Sale, August 8, 9

The Mile High Daylily Society will hold its annual sale at DBG from 9 a.m. to 4 p.m. on Saturday until sold out on Sunday. The sale offers an excellent opportunity to acquire affordable new cultivars which have been grown and are proven in the Rocky Mountain region. Entry to the sale is included with general admission to the Gardens. For more information, call Sabine Baur, 755-1108.

Fête des Fleurs, August 13

The "Party of Flowers" is an annual, black-tie gala set amidst the beauty of the Gardens. This year's event will feature dinner, dancing and the formal dedication and first public viewing of the new Romantic Gardens. The Fête is the largest fundraiser benefitting DBG's many year-round education programs. Ticket prices are \$175 for individuals and \$250 for patron-level guests.

Romantic Evening, August 14

Put a little romance in your life at the grand opening celebration of DBG's newest addition, the Romantic Gardens. This special evening will feature romantic, live music, desserts and Colorado wine. Member admission is \$6 and \$10 for nonmembers. Festivities start at 7 p.m.

Mushroom Fair, August 16

The 22nd annual Mushroom Fair of the 500member Colorado Mycological Society will take place from 11 a.m. to 5 p.m. The fair will feature thousands of Colorado mushrooms, educational displays on poisonous and edible varieties, and cooking with mushrooms. You are welcome to submit mushrooms for identification. Entry to the show is included with your admission to the Gardens. For more information, call Marilyn Shaw, 377-1278.

KEY FOR CALENDAR

Bold teal type = Gardens events (V) = Volunteers are needed. Call Dorothy Pate, 429-8602.

Bold black type = Plant Society events Regular black type = Classes (CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION:

Gardens events 303.370.8187

Plant Society events 303.370.8097 Classes 303.370.8020

Romantic Sard



Japanese Tea Ceremony*

Free Day at York Street

3-9 Trip to Maine* Summertime Kids: Daisies, Dancing & Drums*

Sunrise Fitness Walk (V Bonsai Society Meeting Arboretum Kid's Club: Understanding Insects*



Daylily Society Sale Japanese Tea Ceremony* 10

Floral Arranging*

Sunrise Fitness Walk (V Circa Botanica and Four reception

Cactus Society Meeting Arboretum Kid's Club: Animal Homes*



16

Romantic Gardens opening weekend festivities

Colorado Mycological Society Mushroom Fair Begonia Society Meeting Sunday Hike* (CH) World of Tea* Japanese Tea Ceremony*

17

Colorado Mycological Society Mtg.

18

Sunrise Fitness Walk (V Scripture Garden Walk*



23

Mt. Goliath work weekend

30

24

31

25

Sunrise Fitness Walk (V



ns open August 14!

Watercolor Show Gloxinia Gesneriad Growers mtg. Stepping Stones* Tour to ForestEdge Gardens* Mt. Goliath Wildflower Tour* Japanese Tea Ceremony*



Senior Early Morning Stroll (V) (members only) **Sunset Garden Stroll (V)**



Aromatherapy: Part IV* (CH)



Summer Concert (V) Willie & Lobo



Free Day & Drop-in Tour

Chatfield Arboretum



Summer Flower Arranging* Japanese Tea Ceremony*



Soapmaking* (CH)





14

Romantic Evening in the Gardens



Romantic Gardens opening weekend festivities

Hitchhiker's Guide to the Summer Sky* (CH) Behind-the-Scenes Greenhouse Tour* Japanese Tea Ceremony*

19

Family Walkabout (V) **Herb Society of America Meeting**

North American Rock Garden Society Meeting Candlemaking* (CH)



20

Summer Concert (V) Phoebe Snow



22

Mt. Goliath work weekend

Aquatic Plant Walk*

26

27

Summer Concert (V) Loudon Wainwright III **African Violet Society Meeting**



28

Bonsai Society Workshop

29

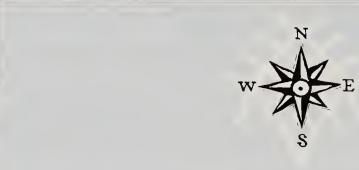
Bonsai Society Workshop Gloxinia Gesneriad Growers mtg.

Preserving Herbs*



New member gathering

Recent new members will be receiving invitations to attend a welcome reception in the Japanese Garden to be held on Wednesday, September 9 from 6 to 7:30 p.m. Enjoy the Gardens at their summer best with tours, light refreshments and Japanese koto music. Reservations can be made by calling 370-8018 before September 1.







Rainforests, Reefs and Ruins of Belize

The 1999 travel program begins with an incredible adventure to Belize. The tour will explore lush tropical rainforests, subtropical savannahs, jungle-shrouded mountains, Mayan ruins and the barrier reef. Teeming with exotic flora and fauna, Belize sustains over 250 varieties of orchids, 500 species of birds, and is one of the last stands of the elusive jaguar. Butterflies darting among ancient stones, water falling a thousand feet, huge iguanas sunning themselves along green crystalline rivers and Howler Monkeys screaming in the high jungle canopy are all part of an unforgettable expedition to Belize. The tour will end at Ambergris Caye off the coast of Belize, where there will be ample time to explore the largest reef in the Western Hemisphere.

This 11-day tour, January 29 to February 8, is \$2,995 per person from Denver and includes lodging, airfare, meals, activities and guide services. The trip is limited to 16 participants. Call 370-8051 for more information.



Volunteers needed for Mt. Goliath project

Please join Denver Botanic Gardens, Volunteers for Outdoor Colorado, the Garden Club of Denver and the U.S. Forest Service for a weekend of hard work in the mountains. On August 22-23, 150 volunteers are needed to help define the Pesman Trail at Mt. Goliath by transporting soil and rocks, revegetating damaged areas and building retainer walls. Skilled crew leaders will be on hand to help direct efforts. All volunteers will be rewarded with refreshments throughout the day and a strong sense of accomplishment at the end of the weekend. Please call Jennifer Darling at 370-8027 for more information.

Plant Dividend Day

This year the members' Plant Dividend Days will be September 19 and 20. Next month's *Green Thumb News* will include a list of the indoor and outdoor plants that will be available. The plants are distributed on a first-come basis but some of each kind of plant will be held for both days. (Only ONE plant per membership, please.)

"A Healthful Harvest"

Learn gardening from Jim Wilson and help feed the hungry!

Well-known gardening expert, Jim Wilson, former co-host of the PBS series, Victory Garden, will be a featured speaker at Denver Botanic Gardens on Sunday, August 30. Jim will discuss how to enjoy gardening — whether your garden is one pot or one acre — sharing tips on container gardens and fall planting. In support of the national program, "Plant a Row for the Hungry," which encourages gardeners to plant and donate produce, Jim Wilson's lecture is free to anyone who brings fresh produce or non-perishable food items. Regular gate fees still apply. This lecture is cosponsored by Secure Horizons and the Food Bank of the Rockies. Lectures will be at 11 a.m., 1 p.m. and 3 p.m.. Please call Anita Livingston at 370-8185 for information.



DBG and Colorado Wine
Board apologize for any
inconvenience caused by
our inability to serve wine
at the Summer Concerts.
Please watch for the Wine
Board at future events.

Thanks to Spring Appeal donors

The Annual Fund supports all we do at the Gardens. Membership dues, gate fees and special events simply cannot support an organization as energetic as ours. A very hearty thank you goes to all those who gave gifts to the Spring Annual Appeal in May. For information on supporting the Annual Fund, call 370-8030.

Gifts of securities

If you own stocks that have appreciated in value and you'd like to avoid paying capital gains, do something special for the Gardens and give a gift of appreciated securities. In addition to these benefits, your gift will help support the programs and services that we offer to hundreds of thousands of visitors every year. Call 370-8030 for information or to transfer stock today!

Romantic Gardens Donors

Denver Botanic Gardens appreciates the outstanding support these generous individuals, organizations, and foundations have provided to make the Romantic Gardens a reality. Thank you!

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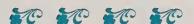
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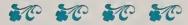
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Remember Denver Botanic Gardens in your will, trust or life insurance policy. Call Jennifer Darling at 370-8027 for information.



Memorials and Tributes

In memory of Marie Schriner

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Thelma Sanders and Brenda Summers

Elizabeth Kreidler

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Ms. Gina Godfrey

In memory of Mark L. Cilento

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Happy Birthdays to Eddie & Hope Connors

Mr. and Mrs. Peter Neidecker

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In memory of Dr. Sidney Hobbs

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In memory of Shirley Newsteter Jeane Thomas Moore

Jeane momas Mila

In memory of Niko Callas

Elaine G. Callas

In memory of Jim Greenfield

Donna Curtis

In memory of John Ryan

Kathy Goldstone

In memory of Kaytee Webster

Crestmoor Mile High Gardeners

Interns energize DBG

Several summer internship programs have infused the Gardens with energy. Five college students arrived mid-June for a summer of educational enrichment and hands-on training as interns in applied horticulture.

Sandra Welch, a graduate of the University of Georgia, and Dru Siley, working on his masters at the University of Colorado-Denver, are training under two Alice Mann Owen internships. Lauren Clubb, of the University of Boulder, CO, and Brian Cooper, of Butte College in Chico, CA, are studying through two Beatrice B. Taplin internships in applied horticulture. Melinda Schroeder, a senior at Colorado College in Colorado Springs, was awarded this year's Clara Van Schaack Phipps internship. The recipient of DBG's newest endowment, the Donald McIntosh internship, is Erin Schaff, a graduate of Bates College in Maine.

Joining the college students are four high school interns, part of the Honor Our Mother Earth (HOME) program for Native American youth. Kyle Tsosie, Twyla Tsosie, Leslie Black Elk, and Alice Granger are working with the education and horticulture staffs.

Wanted: tree enthusiasts

Share the joy of plants with young people this fall by guiding a fall theme tour, "The Deciduous Forest!" Lead elementary students around the gardens and investigate natural wonders at the indoor discovery center.

Guides will be trained and provided with all the materials needed to present a high quality educational program. Theme tour training is on Thursday, September 10. Tours and activities for 2nd to 6th graders are held on Tuesday and Thursday mornings throughout the fall. Call 331-5777 for information or 370-8020 to sign-up for training.



(Front row, left to right)
Horticulture intern,
Sandra Welch; research
intern, Chris Malone;
horticulture intern,
Melinda Schroeder;
research interns, Paula
Ellison and Aaron Shiels.
(Back row, left to right)
Applied horticulture
interns, Erin Schaff,
Lauren Clubb, Brian
Cooper and Dru Siley.



Baa, baa, baa!

Lamb's ear (*Stachys byzantina*) is a very common plant in horticultural therapy programs. The thick, wooly leaves, fragrant when crushed, also make for an unusual tactile experience. Because the plant is so easy to grow and propagate, even horticultural therapy programs with limited resources can grow and use lamb's ear.

There are many strong opinions about using lamb's ear in the garden. Allen Lacy could be a horticultural therapy salesman for this plant. He wrote "The woolly, gray leaves...are so soft to the touch that it's highly likely that all children who are given one to rub against their cheeks will grow up to be gardeners."

Whether the plant should be allowed to flower is the topic of a long-standing debate. In 1915, *The Book of Hardy Flowers* complained that the flowers "are not very showy." In 1964, Margery Fish felt that the ground cover was wonderful under roses, but the flowers should be removed. Christopher Lloyd, in 1985, admonished that they are "dishevelled, gawky and stemmy and have to be removed." In 1990, Rob Proctor mildly suggested, "Some gardeners object to the flowers altogether, and cut them off. What work! In my garden, we have flowers."

As for their ease of growing in gardens, it seems that English authors find lamb's ear to be relatively carefree. Authors from the southeastern United States know its limits. Both Allen Lacy and Allan Armitage give great warnings about how the summer heat and moisture make the plant rot. Luckily, in Colorado, it grows even more easily than in English gardens. Rob Proctor calls it "extremely drought-resistant."

A favorite of horticultural therapists and gardeners alike, lamb's ear can be found in several areas of DBG. Just resist the urge to rub it against your cheeks!

Armitage, Allan M. *Herbaceous Perennial Plants*. 2nd ed. Champaign, III., Stipes Publishing, 1997. SB 434.A7 1997

Fish, Margery. *Ground Cover Plants*. London: Faber & Faber, 1980, c1964. SB 432 F5748 Lacy, Allen. *Gardening with Groundcovers and Vines*. New York: Harper Collins, 1993. SB 432 .L35 1993.

Lloyd, Christopher. Foliage Plants. new & rev. ed. New York: Random House, 1973. SB 431 L56 1985 Proctor, Rob. Perennials: Enduring Classics for the Contemporary Garden. New York: Harper & Row, 1990. SB 434 .P7 1990

Thomas, H.H., ed. The Book of Hardy Flowers. London, Cassell & Co., 1915. SB 406 T36

Horticultural Therapy

As the saying goes, build it and they will come. It certainly holds true for the Denver Botanic Gardens Center for Horticultural Therapy Studies. The newly created certificate program in horticultural therapy (HT) began last October, and people have been coming from as far away as Alaska and Maine to attend classes. Current students in the program represent 13 different states and a wide variety of backgrounds.

DBG has provided continuing education in horticultural therapy on a regular basis since 1982, but it wasn't until the fall of 1997 that the Center for Horticultural Therapy Studies was born. In direct response to both the nationwide scarcity of adequate HT training opportunities and regional demand, the certificate program was developed by Denver Botanic Gardens in cooperation with Colorado State University (CSU). DBG staff members are joined by leading HT professionals from around North America, to teach classes, which are offered three times a year.

Initially, 34 students registered for the first series of certificate classes. Obviously, DBG was filling a need, clearly illustrated by Illinois student, Pam Chism, in her explanation of her journey to Denver.

"I started my trip to Denver at 9 a.m. Five McDonald's Playlands, one night at grandma's, and 32 hours later, I arrived with my two-year-old son and travelweary husband," said Chism. "This is my third such trip this year and I have two more to make before next spring. Believe me, if I didn't love the Horticultural Therapy program at DBG, I would not be making this trip."

Chism is an activity assistant in a home for developmentally disabled adults in East Peoria. Her love for horticulture and people were what brought her to discover horticultural therapy. When



researching educational opportunities, she was dismayed to find so little available. After much searching and even toying with the idea of relocating to Kansas to attend KSU, where a bachelors degree in HT is offered, she discovered the DBG certificate program. "This was the answer I'd been looking for," Chism said.

Once Chism has completed all of the requirements she hopes to implement a full horticultural therapy program at the facility where she currently works.

"Horticultural Therapy, I believe, will open up a whole new accessible world for the people I work with. A world of sensory experiences and new skills on the long road to independence."

Chism will be among the first students to graduate from the program next March. Another introductory course, which gives students an overview of the field of horticultural therapy as well as the certificate program, will be offered September 24-27. The class is a prerequisite for all future certificate courses. To register call 370-8020.

For information about the program offered through the Center for Horticultural Therapy Studies call, 370-8190.

Christine Kramer, DBG Horticultural Therapy Assistant

"Trees and Shrubs" on fall class agenda

Al Rollinger, one of the top tree experts in the area, will return to DBG this fall to teach "Trees and Shrubs for the Front Range," a premier course at DBG. Rollinger co-authored the book, *Trail of Trees*, a guide to the trees of Fairmount Cemetery.

Though part of the Rocky Mountain Gardening Certificate Program, the course is open to everyone. The Program, a comprehensive study of Front Range gardening practices, provides participants with the unique opportunity to work on DBG grounds. Look for more information in the fall education guide.

Chatfield theme tours

Chatfield Arboretum will offer fall theme tours for elementary schools. The tours include "Animal Homes," "Insects," "Pumpkin Patch," "Wetlands Walk," "Leaf Hunt," "Twig Hunt" and "Riparian Exploratour." As always, the more general nature discovery hikes will continue to be offered. Teachers are encouraged to bring their students to Chatfield for a more "hands on" approach to science. For information, call 973-3705.



Turn up the heat of August with a selection from DBG's Inca Flame Aji collection, an assortment of chili products from the coastal deserts of Peru. Sun-dried peppers, hot sauces and Inca Flame Aji pickled peppers range from mild to potent. For a festive occasion, add a chili pepper apron, hot pad and placemats — all available at the DBG Gift Shop.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

Address service requested

Green Thumb News

General information

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206 Edited by Julie Behrens Designed by Julie Rudofsky

331-4000

TDD		370-8032
Dr. Green plant information		370-8068
Tues. and Thurs., 1 to 3 p.m		
Planttalk (24-hour)	1-888	-666-3063
recorded plant information		
Gift Shop		331-4009
9:30 a.m 4:30 p.m.		
Helen Fowler Library		370-8014
Sun. through Sat., 9 a.m. to	5 p.m.	
Closed major holidays.		

Offices

Mon. through Fri., 8 a.m. to 5 p.m.	
Class registration	370-8020
Facility rental	370-8012
Green Thumb News	370-8033
Guided tours	370-8019
Job Hotline	370-8000
Membership services	370-8029
Security, emergencies	370-8017
Special events information	370-8187
Development	370-8055
Volunteering	370-8049
Chatfield Arboretum	973-3705
Every day, 9 a.m. to 5 p.m.	

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department, Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: "Romantic Gardens" by Jan Elfline

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From the Top

News from the Executive Director

Many have asked what being a corporate member at Denver Botanic Gardens means to their company and employees. That is a good question.

Being a corporate member of DBG generates new customers, can strengthen your customer relations, allow your organization to achieve recognition as a corporate community leader and create a positive employee relationship. By supporting DBG you can also gain important exposure to more than 350,000 visitors per year.

With today's hectic lifestyle, you, your employees and customers need a place of refuge — which is exactly what you'll find at Denver Botanic Gardens. Spend an evening at an outdoor concert, take a stroll through the 23-acres of gardens at our York Street location, roam the 300-acre farm at our Chatfield Arboretum location, or hike through the bristlecone forest and fields of wildflowers at our Mt. Goliath mountain location. We think you'll agree that Denver Botanic Gardens is a treasure right here in the Rocky Mountain region — one that can add an extra dimension to your corporation and your employees' quality of life.

We grow through the support of people like you and corporations like yours. Over 46% of our operating budget is funded from community donations. We appreciate the outstanding support we receive from the corporate community.

John B. Proffitt, Interim Executive Director



You haven't been here yet?

Fall is a great time to get out of the city and get reacquainted with nature. Chatfield Arboretum has an assortment of activities for all ages. For those who are new to Denver Botanic Gardens, Chatfield Arboretum is a 700-acre nature preserve with two miles of walking trails that allow viewing of the wetlands, restored mid-

grass prairies, historical buildings from the late 1800s and all types of wildlife.

Chatfield Arboretum is probably best known for the amual Pumpkin Festival, which will be on Saturday, October 10 this year. This is a grand event where families can come and enjoy food, crafts, games, children's activities and, of course, pick their own pumpkins.

Although the Pumpkin Festival and December Treemendous Christmas tree sale, are the Arboretum's most visible events, many educational opportunities are also offered in the fall with topics including bats, beeswax candlemaking, pumpkin carving and more! Field trip tours on many different subjects including trees, insects and ecosystems are offered to schools throughout the year. Chatfield Arboretum is open seven days a week from 9 a.m. to 5 p.m. for anyone who wants to enjoy the walking trails, fresh air and wildlife.



If you haven't been by yet, please be sure to visit the newly completed Romantic Gardens. The DBG Horticulture staff has done a wonderful job of creating a relaxing, sensory experience.

By the end of September, the construction phase of the Conservatory will be almost complete. The banyan tree, rock wall and paths are nearing completion and the development of the stream will start soon. October planting will be the next considerable task.



August's employee of the month is horticulturist Amy Yarger who tends to the Scripture Garden and the Cutting Garden. Additionally, Amy keeps all DBG employees current, via E-mail, on plant happenings in the Gardens. Her commentary, compiled from her fellow horticulturists' input, is timely and informative and serves as a reference when staff members welcome visitors. Thank you Amy and congratulations!



Tall wetland plants along a creek at Chatfield Arboretum show their autumn color.

Cover Story: Back to School

Back to school — time for pruners, pollen, paints and potpourri, not just pencils and paper! Education at the Gardens means gaining first-hand plant knowledge, no matter what your age or how limited your time.

You don't need to be the traditional "school" age to learn at DBG. Our adult education courses reach over 8,000 people a year with topics covering all aspects of planning, planting and selecting the right plants. Check the class catalog to find your perfect class. New this season is an updated Botanical Illustration Program and an expanded range of herb classes. The Rocky Mountain Gardening Certificate Program also continues to grow. Upon completion of this innovative program, students gain hands-on experience through working alongside professional DBG horticulturists.

Warm autumn days bring flocks of field trips to the Gardens. Each week 120 elementary students explore the deciduous forests on the habitat theme tour. Even more children learn with the aid of Discovery Backpacks, Family Science Fun Packs and Classroom Lab Kits. These new science programs allow DBG to teach relevant plant information to ever greater numbers of young people (see pg. 10).

Meanwhile at the Morrison Center (just across York Street), another session of the Horticultural Therapy Certificate Program begins this month. Through this curriculum, human service professionals learn how to integrate the cultivation of plants into therapeutic programs. For more information about Horticultural Therapy, call 303-370-8190.

Go back to school this fall and cultivate your mind at Denver Botanic Gardens!

Bonfils-Stanton Lecture: Species roses

The Bonfils-Stanton lecture series continues this fall on Wednesday, September 23, with William Grant presenting "Using Species Roses in Your Garden." Roses are the most popular of all flowers yet many gardeners avoid using species roses, which are non-hybridized rose plants, because they have received little commercial promotion. These beautiful roses are actually low maintenance and can be very hardy in home gardens while delighting growers with beautiful blooms, fragrance, foliage and colorful hips. Species roses also thrive in environments that are free of chemicals and sprays, making them a welcome addition.



William Grant has been vice-president of the Board of Governors of the University of California at Santa Cruz Arboretum for several years and oversees their international plant conference and lecture series. He recently founded the California Garden and Landscape History Society and is a member of numerous U.S. and international rose societies. Grant has written numerous magazine articles and has led many garden tours, frequently highlighting roses, in New Zealand, Australia, France, Germany and England. At his hilltop home in Aptos, California, Grant grows over 400 species roses.

Begun in 1987, the Bonfils-Stanton Lecture Series explores the diversity of gardening and is named in honor of the Bonfils-Stanton Foundation whose generous support makes it possible for DBG to bring to you renowned speakers from across the country. Lectures begin promptly at 10 a.m. and 7 p.m. in Mitchell Hall. The cost is \$8 for members and \$12 for nonmembers. Please call 303-370-8020 to register.



The Gardens' water lilies will continue to bloom until the first freeze, so there's still time to enjoy many beautiful displays. The ponds will be drained in October.



Indian paintbrush (Castilleja integra).

Prairie song

As summer yields to fall, take a stroll through the Laura Smith Porter Plains Garden. At first glance this can seem like little more than a grassy field. Look a little closer! Picture Denver over a hundred years ago. From where you stand, these grasses once swept beyond the horizon over undulating green hills. Paintbrushes glowed like embers and sand lilies sweetened the spring-

time air. Silky lawns of needle-and-thread grass shimmered in the warm morning breeze. Meadowlarks perched on yucca stems and sang their timeless song.

Times have changed. Today, native prairies have been pushed from the reach of most urban dwellers. A visit to the Plains Garden recaptures a small slice of what the prairie was and reminds us to preserve what we can of our natural heritage. This garden includes some of Colorado's most prized native flowers and grasses. Each spring a steady parade of bloom begins with penstemons, flax and sand lilies. Midsummer brings the bright magenta flowers of the bush morning glory, purple spikes of liatris and lemon clouds of groundsel. Fall blazes with golden grasses and lavender drifts of Tahoka daisy.

This last season has brought many changes to the garden. A new pathway leads through a mixed grass prairie and rock outcrop reminiscent of the unique Mesa de Maya region that stretches far out into the plains of southeast Colorado. Many

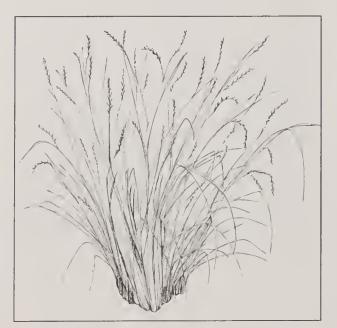
new plants will be featured here next season. The margin of the West Pond has been rebuilt to accommodate native wetland species. From there, a streamside boardwalk now leads through a riparian and foothills area into the montane forest of the Gates Garden of the garden that have languished under a burden of bindweed and cheatgrass are blossoming again with long-absent wildflowers.

The dust of reconstruction has settled and replanting is nearing completion, despite summer's heat. It will be exciting to watch these native treasures become re-established. For us, this has been a busy year in the Plains Garden. For you, this is the time to slow down, breathe deep and enjoy this tranquil space!

Dan Johnson, Horticulturist



When strolling through the Laura Smith Porter Plains Garden, look closely among the many grasses, and you'll find all kinds of blooming treasures.



Schizachyrium scoparium illustration by Jayme Irvin.

Plant Portrait

Schizachyrium scoparium

Little bluestem (*Schizachyrium scoparium*) plays a feature role in the Laura Smith Porter Plains Garden. This sturdy perennial grass is a worthy addition to any perennial graden where a smaller sized ornamental grass is desired. Dense clumps of bluegray foliage grow 12-15 inches tall. In late summer airy spikelets of the infloresence bring the height to 3 feet. Autumn and winter color are outstanding as little bluestem turns coppery red in the fall and mellows over the winter season into warm golden orange.

Tough and adaptable, little bluestem will tolerate poorer soil and, once established, needs little irrigation. Observe its subtle beauty in the habitat of the Plains Garden and consider adding a bit of the native prairie to your home landscape.

Harvest time & winter prep

With the changing of the seasons comes a shift in thinking about garden care. Currently at Chatfield Arboretum, we're continuing the harvest of tomatoes, squash and Indian corn. We will soon begin gathering the gourds that will be sold at the Pumpkin Festival. We anticipate the first good frost, for only then will the entire crop of pumpkins be revealed from under the summer's foliage.

We are often asked what it takes to prepare a garden for winter. Although the Arboretum consists of 700 acres, many of our principles will relate to your own back yard. This is the time to consider additional water for trees and shrubs. Deep watering in the fall provides woody plants reserve moisture to



sustain them through our typically dry winters. You will want to continue watering through the winter, especially for younger trees and shrubs.

After the first hard frost, pull all the summer vegetables and annuals that have

succumbed. Add them to the compost pile instead of leaving them in place and you will have fewer insect and disease problems next year. When the tops of the perennials die down, resist the temptation to remove the dead material because it can act as an insulator over the winter to protect the plants from the ravages of our temperature fluctuations. Spring will bring plenty of time for cleaning this extra material out of the garden.

At Chatfield Arboretum, we are fortunate to be surrounded by so many trees that display brilliant colors and grasses that fade into fall with subtle brown tones. Enjoy the color changes that come with fall. Next year's seed catalogs will arrive soon enough, and with them, the promise of a new gardening season.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.



An autumn-blooming Colchicum.

Q. I've admired the autumn crocuses that grow at DBG. When should they be planted?

A. We primarily grow species and hybrids of the genus *Colchicum*, a member of the lily family (true crocuses are in the iris family.) Corms may be purchased at garden centers during the autumn season and should be planted at that time. The corms will produce a tuft of foliage the following spring which will yellow and die by midsummer. The corm will then bloom in autumn. *Colchicum* prefer a good garden soil which has been amended with compost or other organic matter. Plant the corms about three inch-

es deep and a minimum of six inches apart in full sun to partial shade. The majority of autumn crocus available are derived from the species *C. autumnale* or *C. speciosum*. Popular cultivars of these rosy-lavender to white flowers include 'Autumn Queen', 'Lilac Wonder', 'The Giant' and 'Waterlily'.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.

September

Volunteers needed

Chatfield Arboretum celebrates the 10th anniversary of the Pumpkin Festival on October 10 from 9 a.m. to 4 p.m. Volunteers are needed to help as cashiers, parking lot attendants, with kids' activities and "pumpkin daycare." Please call 303-973-3705 for information.

Goblins in the Gardens has been expanded to two days, Saturday and Sunday, October 24 and 25. Volunteers are needed immediately for event planning and to make decorations. The committee also needs volunteers to help with set-up and break-down, kids' craft activities, fortune-telling and giving out treats.

To assist with Goblins or other special events, please contact 303-370-8049.

Three Gs

The Gloxinia Gesneriad Growers, better known as the Three Gs, will host their annual "Gesneriads Around the Town" show and sale on Saturday, September 12 from 1:30 to 4:30 p.m. and Sunday, September 13 from 10 a.m. to 4:30 p.m. The sale will feature various gesneriads, including episcias, columneas, sinningias and African violets. For information, call Bonita Hutcheson, 303-781-2406.

Free photo class

What better place to learn close-up flower photography than Denver Botanic Gardens! Robert Waxman University is offering a free class at the Gardens on how to improve your skills. The class will be held Sunday, September 27 from 3 to 4:30 p.m. in Mitchell Hall. Bring your camera and practice shooting after class from 4:30 to 6:30 p.m. Call 303-370-8018 to register.

Summer concert finale

The full-blooded Irish melodies of Solas will be heard throughout the Gardens on September 3 at 7:15 p.m. The Irish instrumentalists are All-Ireland champions and Karan Casey's soaring crystalline voice is like no other. The already sold-out concert will provide a lovely finale to the summer.

Japanese Tea Ceremony*

SUNDAY

Free Day at York Street

MONDAY

1

8

Cactus Society Meeting Landscape Design Theory*

Bonsai Society Meeting

TUESDAY

13

Gloxinia Gesneriad Growers Show & Sale Colorado Water Garden Society Meeting

Walking, Talking & Eating: A Tasty Tour of DBG's Community Gardens*

14

Colorado Mycological Society Mtg. Wild, Tasty Weedies*

15

Bonsai Society Worksho

Cooking with Herbs* The Perennial Advantage: F Swainson's Hawk and Fall Migration* Capturing Autumn Leaves,

and Berries with Colored

20

Plant Dividend Day members only

Well-Care Herbs*

21

22

Introductory Aromatherapy The Seven Principles of Wa Gardening*

KEY FOR CALENDAR

Bold gold type = Gardens events (V) = Volunteers are needed. Call Dorothy Pate, 303-429-8602.

Bold black type = Plant Society events Regular black type = Classes (CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION: **Gardens events 303.370.8187**

Plant Society events 303.370.8097 Classes 303.370.8020

27

Waxman University Photography Workshop

Dealing with Stress Naturally*

28

Ultra Violet Club Meeting

Herbal Creations Workshop* **Bulbs for Spring Color***

29

Native Plant Society Me

The Art of Essential Oil Ble



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enver Botanic Gardens is offering its members and friends the rare chance to purchase named bricks in the Romantic Gardens. We will engrave your name or the name of someone special in your life on either a red brick paver for \$200 or an elegant gold inlaid signature brick for \$1,000.

The path will be part of Denver Botanic Gardens — for you and your children and your children— to enjoy forever. The number of bricks available for engraving is limited, so complete the order form and mail today!

Name	Address	Phone number	Fax number · Email	Enclosed is payment of my tax deductible gift in the amount of \$	Acct. number	Denver Botanic Gardens will be pleased to acknowledge your gift to the honoree or to the family of the person being remembered. Please indicate to whom we should send notice of this gift:	Address	Phone Gift was given □ in tribute □ in memory		For red brick pavers at \$200, be sure to print precisely, using a maximum of 14 characters per line; include punctuation, spaces, numerals, and ampersands. Please have my Garden brick read:	For a gold-filled signature brick at \$1,000, sign here with a felt-tipped pen:		\Box I am unable to purchase a brick, but enclosed is my contribution of \$ to support the Gardens.
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Mail to Denver Botanic Gardens, Attn: Development, 909 York Street, Denver, CO 80206. For more information about your named brick, please call 303-370-8030. Many other exciting naming opportunities are available at the Gardens! Call the Development Office, 303-370-8027 for more information.

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A Gardens' visitor enjoys the entertainment during a recent Family Walkabout.

Membership rewards

Upgrade your membership to a \$120 Botanist Club or higher and receive a complimentary voucher for two "best seats in the house" tickets to a Mozart Works Sinfonia of Colorado concert (value \$52). Concerts are held at the historic Trinity United Methodist Church in downtown Denver from September through May. Sign up early for your choice of concerts — offered on a first come basis until supply is exhausted.

Name exchanges

Periodically the Gardens exchanges names with other local cultural agencies. If you do not want your name given out, please call the Membership Office at 303-370-8029. If you have already notified us, you do not need to do so again.



DBG TRAVEL ADVENTURES

Upcoming travel options

Belize, Portugal and Madeira, Santa Fe, Alaska and Southern California are DBG's exciting travel destinations for 1999. More details will be available in the travel brochure which will be inserted in the October *Green Thumb News*. This year's trips filled very quickly so don't be left behind next year! Call Pam Rathke at 303-370-8051 with any DBG travel questions.

Plant Dividend Days

Mark your calendar for September 19 and 20 and don't miss the opportunity to choose a plant from the annual plant dividend — one selection per membership. Each year the DBG horticulture staff selects and grows plants for this membership benefit. Following is a partial list of species we expect to have available in Mitchell Hall from 9 a.m. to 4 p.m. on each day. Come early for the best selection. Quantities are limited.

Indoor Plants

Propagated from specimens removed from Boettcher Memorial Conservatory.

Jade plant (Crassula argentea)

English ivy (Hedera helix)

McCellan's fig (Ficus mccellanii var. 'Alii')

Nematanthus (Nemantanthus 'Tropicana')

Nematanthus (Nemantanthus x codonanthus 'Aurora')

Creeping charlie (Pilea nummulariifolia)

Friendship plant (Pilea involucrata)

Aluminum plant (Pilea cadierei)

Staghorn fern (Platycerium bifurcatum)

Outdoor Plants

Eastern redbud (Cercis canadensis)

Wormwood (Artemisia x 'Powis Castle')

Wormwood (Artemisia x 'Old Woman')

Snowdrop anenome (Anenome sylvestris)

Purple Mountain sun daisy (*PPAF*, Osteospermum barberiae v. compactum 'Purple Mountain') Lavender MistTM sun daisy (Osteospermum 'Lavender Mist')

Stonecrop (Sedum spurium 'Red Carpet')





This ol' house

As those of you who have recently visited know, the Botanic Gardens House is undergoing a facelift. Thanks to a generous grant from the State Historical Fund and private matching support from several donors, the insides and outsides of the house (also known as the Waring House) are being renovated. In addition to roof and stucco repairs, the project will restore the first floor of the house to its 1927 splendor. The most visible changes

will be to the mainfloor where direct lighting will highlight the exquisite painted ceilings. New drapery and carpets will brighten the rooms and create space conducive to socializing and meeting.

We sincerely thank Mr. and Mrs. Charles Gates, Mr. and Mrs. Walter Emery, Mr. and Mrs. Thomas Taplin and Mrs. James Hartley for their generous support of this endeavor. Also, this would not be possible, without the grant from the State Historical Fund.

Thanks for flying with us

A crowd of more than 15,000 visitors flocked to the 1998 BirdHaus display to enjoy the 230 bird house and feeder creations. "Big Mama Bird House Family" by Sara Howell won the Best of Show. The People's Choice award went to Stanley Turner for his intricate wooden "Sticks and Feathers." Thanks to all who attended.

DBG also thanks the Corporate Sponsors: 9News; Colorado Birdseed Packaging, Inc.; Molitron, Inc.; United Airlines; Vectra Bank and Wynkoop Brewing Company.

Corporate partners

The 2nd annual Corporate Evening at the Gardens was a success! Despite rain clouds and traffic jams, over 600 DBG corporate partner employees and their families enjoyed an evening in the Gardens on July 9. The children flew their handmade butterflies, while adults enjoyed music by Namaste. The evening began with an Awards Presentation in which DBG's Top Ten Corporate Donors were honored with framed certificates of appreciation. The corporations honored were: Bank of Cherry Creek; Colorado Wine Board; Davis, Graham & Stubbs, LLP; Foley's; PacifiCare/Secure Horizons; Public Service Co. of Colorado; Security Life of Denver; The Denver Post; Thomas & Perkins; and Wells Fargo. The Corporate Evening is one of many ways for DBG to show appreciation to the many supportive corporate partners.

Member perks

This summer, our Circa Botanica and Four Seasons members enjoyed special behind-the-scenes tours and private garden receptions at members' homes. On July 20, Bea and Tom Taplin hosted cocktails and hors d'oeuvres at their home following a tour of private gardens earlier that afternoon. Ruth and Tom Keesling, Anne Weckbaugh, Eddie and Hope Connors and Vernon and Ann Taylor also shared their home gardens with this special group of members.

The two member groups also enjoyed sneak previews of the Romantic Gardens and the renovated Conservatory. For more information on the benefits of becoming a Four Seasons or Circa Botanica member, please call Jennifer Darling at 303-370-8027.

Memorials and Tributes

In memory of Evelyn Margaret Richards Maxine Heberling Mayme A. Crist **DCI** Corporation In memory of Esther Jones Crestmoor Gardeners In memory of C. R. McCotter Mr. and Mrs. Walter C. Emery In memory of David Dunklee Mr. and Mrs. Walter C. Emery In honor of the staff at DBG Mr. and Mrs. Rick Daley In memory of Woodie Mae Nance Juliann Maren In memory of Gunnar Mykland Ruth Heinrich-Clark In memory of Helen Kelly Walter Fox



Remember Denver Botanic Gardens in your will, trust or life insurance policy. Call Jennifer Darling at 370-8027 for information.





Check out the Community Gardens!

Come learn about this most eclectic, totally organic and wonderfully vibrant part of DBG during a special walking tour on Wednesday, September 13 from 1 to 3 p.m. Although the gardens are always open to the public, on this day we will look at some of the more unusual and magnificent plots, meet the gardeners who tend them and sample their harvest. You'll see how regular people grow regular (and some very unusual!) veggies, herbs and flowers. You'll also learn how to make compost. We will discuss community gardens around the country and urban greening in general.

The Community Gardens occupy a large portion of the DBG York Street site. There are 250 individual plots and numerous "common areas" of herbs and flowers. There are also two grape arbors and raspberry patches, a garden designed for children to pick and plant, several working compost piles, fruit trees and an asparagus bed. Most of the magic of the community gardens, though, is within the 250 plots that people from all over Denver come to tend. To register for the tour, call 303-370-8019.





Where the buffalo roam

Buffalo bellow plant (te-huntonhi) is the Omaha name for the primary prairie flower in bloom during the buffalo rutting season. Colorado gardeners know it as leadplant (*Amorpha canescens*), a common xeriscape plant.

As an ornamental, *Amorpha canescens* has a midsummer bloom that will brighten up the garden during the sweltering days of July. The plant's bright orange stamens, contrasted against the purple, single-petalled flowers arranged in spikes, produce a spectacular, psychedelic look.

As pretty as it may be, ranchers consider *Amorpha canescens* as prime forage for cattle and buffalo. Cattle relish this highly nutritious treat. However, if an area is overgrazed, the plant won't survive. *Amorpha canescens* can be mowed and survives in hay-fields and pastures as an herbaceous perennial. Its root system can grow to 16 feet deep in the ground. Since the prairie grass root system is shallower, the leadplant can reach water sources the grass cannot reach.

Amorpha canescens can be found in open prairie, woodland, hillsides and roadsides from Indiana to the eastern counties of Colorado, and from North Dakota to the panhandle of Texas. Reaching a height of six feet, in the open prairie it often serves as the only high perch for birds.

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Children, science and plants

Packed full of educational "goodies," DBG's Family Activity Kits feel more like bags of toys than science lessons. Families using the kits can watch white beads turn pink when exposed to UV rays, split light with prisms, investigate insects with hand lenses and ponder as paper changes color before their eyes. Even though these lessons involve complicated topics such as wave lengths, chlorophyll, and plant "sunscreen," you'll have fun while you learn.

New self-guided Discovery Backpacks also provide similar hands-on investigations for students in school groups. "Plant Detectives" send children, equipped with magnifying glasses and micro-viewers, on a science-based plant hunt. Japanese Garden Packs highlight Shofu-en with a tour, traditional folk tales, and origami activities. Rock Alpine Garden Packs help high school students observe relationships between geology and botany. All packs are designed for groups of 10 or fewer students, so that all children have a chance to find out for themselves how plants can be exciting.

For more information about Family Activity Kits or Discovery Backpacks, please call 303-331-5777.



The practical landscape

Tired of the romantic notions about attracting butterflies to your garden when you don't know bindweed from begonias? Then don't miss "The Practical Landscape: Boost Your Landscaping IQ!" on Saturday, October 3. This all-day symposium will include a roster of expert landscape professionals who will provide information ranging from basic landscape instruction to practical insider tips and practices.

Professional residential landscape architect, Diane Ipsen, has visited hundreds of local properties and will reveal her hit list of the most common uglifiers of home gardens in "Landscaping Follies and Faux Pas." This presentation will encourage you to see design problems through the eyes of a professional and to consider many beautiful, practical and functional solutions.

Landscape designer Al Rollinger will present "Pruning Horrors: From Corndogs to Lollipops" where you'll

learn how to properly prune in order to maintain plant health. You'll also gain insights on how pruning affects flowering, branching patterns, winter appearance and the overall shape.

CSU-County Extension Agent Robert Cox will discuss how to plant, water and maintain your lawn in "The Sacred Bluegrass Lawn." Many people have become slaves to their lawns but through practical practices, you can learn how to maintain a lawn area for children and pets without occupying all of your time.

Watering and soil amending are two areas that confuse almost everyone. Larry Watson, one of the top plantsmen in our region, will address these challenges in "Torturing the Landscape." Learn about watering practices, myths and misconceptions, as well as when to improve your existing soil and how to adjust your plant materials to match conditions.

Harriett McMillian, Denver Botanic Gardens' Horticulture Information Specialist, will discuss tips and techniques on perennial maintenance in your garden during "Perennials: The Good, The Bad, The Easy." You'll learn the seven guidelines to tell if your plant choices really are low maintenance. Keeping your garden looking its best throughout the year is not difficult once you have the tools to guide you through plant selection, planting and maintenance.

"The Practical Landscape" symposium will highlight ideas and principles for Front Range gardens. New gardeners, experienced gardeners or those new to Colorado will benefit, and attendees should expect to come away with ideas for renovating an existing landscape. The program is Saturday, October 3, from 8:30 a.m. to 3 p.m., in Mitchell Hall and is \$46 for members and \$57 for nonmembers. The fees include all handouts and lunch. Please register early by calling 303-370-8020.



"The best darn honey by a dam site" and beeswax candles are prepared by staff and volunteers at Chatfield Arboretum. These and many other bee-related items are available year-round in the Gift Shop.

The Gift Shop will host a jewelry sale, Sept. 15-30, featuring some special items from the glass case.

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Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: "Back to School at the Gardens" by Kim Cook.

Non-Profit Org. U.S. Postage **PAID**

Denver, CO Permit No. 205

Liumb New fre October 1998 Pender Lowing Can THE PUMPKINS ARE READY! DON'T MISS THE PUMPKIN FESTIVAL ON OCTOBER 10 Denver Botanic Gardens story on page 3



From the Top

News from the Executive Director

Involvement and commitment are two important words that best describe the dedicated volunteers who have served, and continue to serve, Denver Botanic Gardens. More than 1,200 volunteers provide essential assistance in many areas. Some are members of the Associates of Denver Botanic Gardens or the Denver Botanic Gardens Guild, which are organizations within the volunteer program. There are also affiliated groups of volunteers that you might meet while volunteering at DBG. These organizations include the Garden Club of Denver, various plant societies and the Colorado Federation of Garden Clubs.

Volunteers can help in many areas of the Gardens. Opportunities include working at the information desk, library, various clerical assignments, gift shop, greenhouses, outdoor gardening and special events. If you enjoy gardening and want to meet people who share your interest, and at the same time be in a beautiful environment, volunteering at DBG is a wonderful experience.

Volunteer applications are accepted by Volunteer Coordinator, Joedy Arnold, at any time.

Indeed volunteers are a very important and much needed part of DBG. We appreciate our many wonderful volunteers and invite you to experience all that Denver Botanic Gardens has to offer.

John B. Proffitt, Interim Executive Director



The Wild Side

News from Chatfield

Readying for winter

As winter rolls around we humans have to do a little more preparation when we choose to enjoy the outdoors (i.e. coat, hat and gloves!). The same is true with wildlife. Of course there are those animals who prefer to migrate south for the winter, but for those who stick it out in the snow, they must find ways to survive.

Some animals avoid the cold by hibernating. Hibernation requires that animals increase their body fat as much as they can before winter. Once they enter their winter homes they must lower their body temperature (and thus metabolism) and live off their fat stores while they "sleep."

Other animals are active through the winter and must grow a heavy fur coat and minimize their outdoor activity during cold spells. They also live off food

supplies that they have stored in their homes. Because deer and elk have no place to store food, they must continue to graze despite the snow. When they cannot find available grasses they resort to eating tree bark and leaves.

Birds must also search for food during the winter which is why many people put out feeders. If you do choose to feed the birds during the winter, it is important to feed them regularly so they know where to find food.

So, the next time you are snuggled by the fire sipping hot chocolate, think about the animals snuggled in their dens or nibbling your trees!



During the month of October, construction in the Conservatory will end and planting of the tropical forest will begin. The Education Building is the focus of the next major renovation project. Scheduled to begin in 1999, the design includes new offices, conference rooms, library, dining area and kitchen. Details will be announced soon.



Joann Narverud is DBG's Employee of the Month for September. Joann has directed the outdoor horticulture staff through the installation of landscaping in the new visitor parking lot and the Romantic Gardens. She managed these major projects while continuing to perform her regular responsibilities. Congratulations, Joann!



Appreciative housefinches crowd a winter feeding station.

Courtesy of Wild Bird Centers, Wheatridge, CO

Cover Story: The pumpkins are ready!

On Saturday, October 10, Chatfield Arboretum will hold its 10th annual Pumpkin Festival with what looks like a great crop of pumpkins. The four-acre pumpkin patch, which was hand-planted by staff last spring, is ready for the pickin'. Bring the family for an autumn day at the Arboretum and enjoy free hay rides, a special holiday craft market, foods and your pick of the pumpkin patch. KOOL-105 will do a live radio broadcast and entertain with fun, music and prizes.

The hours are 9 a.m. to 4 p.m. rain or shine and the cost is \$4 for adults, \$2 for youth six to fifteen and free to those 5 years and younger. All youth in costume also receive free admission. For more information, please call 303-973-3705.



Holiday Gift and Garden Market

This holiday season, avoid the madness of holiday traffic and shopping malls and come to the DBG Holiday Gift and Garden Market on November 13 and 14 from 9 a.m. to 5 p.m. If you loved the plant sale, you will not want to miss this unique garden market. This year's market will have a much broader selection of garden-themed holiday goodies.

Products available at the market will be contributed by the DBG Gift Shop, volunteers, the Guild and Associates volunteer groups and outside product vendors. Look for antique botanical illustrations, the best new tools, botanical pottery, handmade paper, herbal seasonings, delectable foods and candies, potpourri pies, concrete garden troughs, tile tables, fragrances, handmade crafts and more.

Bonfils-Stanton Series concludes with bonsai

Experience the world of peace, harmony and tranquility when you attend "The Art of Bonsai," on Wednesday, October 28. The Bonfils-Stanton lecture series concludes with this special two-hour slide lecture and demonstration presented by David De Groot, curator of Weyerhaeuser Company's Pacific Rim Bonsai Collection near Seattle.

The miniature trees and shrubs, known as bonsai, can be created with a basic understanding of the plant's growing requirements. The mystery of the bonsai lies in its beauty, not care. Bonsai (pronounced bone-sigh) is a Japanese word that, freely translated, means a tree in a pot. Both the tree and its container are important elements of the overall presentation. Combined, they are a horticultural process, an art form and an extension of Eastern philosophy.

David De Groot tends Weyerhaeuser's collection of nearly 100 trees, manages the facility and operates an education program. He has received the Bonsai Clubs International "Outstanding Writer, Artist and Photographer Award," has served two terms as director of the American Bonsai Society and has been cited for his contributions to the American Bonsai Society Journal. His booklet, Basic Bonsai Design, is in its second printing.

Begun in 1987, the Bonfils-Stanton Lecture Series is named in honor of the Bonfils-Stanton Foundation, whose gen-



erous support allows DBG to bring you renowned speakers from across the country. Please plan on attending either the 10 a.m. or 7 p.m. presentation on Wednesday, October 28, in Mitchell Hall. To register call 303-370-8020. The cost is \$8 for members and \$12 for nonmembers.

A tropical treat

Denver Botanic Gardens will celebrate the grand reopening of our newly renovated Boettcher Memorial Conservatory with luscious food of the tropics and island entertainment including dancing from Hawaii, New Zealand, Samoa, Tahiti (Otea dance or hip shakers) and Fiji. You won't want to miss the fire dancers. Entertainment will be provided by Polynesia-Pacifica. This special members-only party is scheduled from 4 to 8 p.m. on the evening of Friday, November 20. Admission is \$10 for adults, \$5 for youth 15 and younger and free to children 5 and younger.

RETURN OF THE TROPICAL FOREST

"From the tropics to the tundra" once served as a descriptive phrase defining the breadth of horticulture practiced and displayed at Denver Botanic Gardens. When the Boettcher Memorial Conservatory reopens to members on November 20, 1998 we will open a window to the tropics that has been closed for more than a year. What should we expect from this renewed facility and what marks its importance to Denver Botanic Gardens?

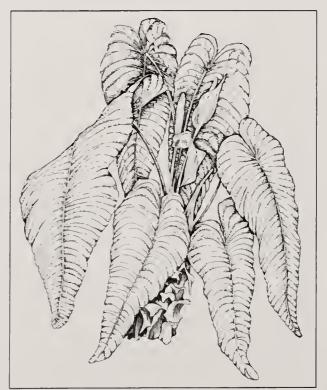
The exterior of the Conservatory will remain unchanged. The dramatic architecture has become the recognized icon identifying DBG to its membership and the community. Within the Plexiglas dome however, many changes and improvements are at hand. The Conservatory is an ornamental greenhouse that provides the conditions to grow and display plants that are not hardy in our climate. The electrical and mechanical systems are undergoing a total renovation that makes the structure fully functional, providing the necessary growing conditions for a tropical display.



Firebird, or Heliconia humilis, will be one of many exotic plants in the renovated Conservatory.

Concrete walking paths will provide easy visitor access to different areas of the exhibit. An elevator enclosed in a simulated banyan tree will offer the opportunity to view the display from several levels and will be accessible to wheelchairs and strollers. Meandering streams and pools will feature aquatic life. The interpretive displays will include fossil vegetation imbedded in rock work. Overhead cliffs and underground caves will create a unique rainforest environment.

As tropical rainforests continue to disappear, education about their plants and ecosystems becomes more critical. The Boettcher Memorial Conservatory is our open window to the tropical habitat. For those of us who may never have the opportunity to visit the tropics, the Conservatory brings the experience home. Visitors will enjoy interpretation about the evolution of plants through time, ecology, the natural resources we depend on from the tropics and the immense diversity of life in threatened ecosystems. Plan to visit the Conservatory when it reopens. Once again the window opens to the drama being enacted on the larger stage of the world's tropical rainforests.



'King Anthurium' illustration by Jayme Irvin.

Plant Portrait

Anthurium veitchii

Called the 'King Anthurium', this native of Colombia is an unusual plant with pendant, showy leaves up to three feet long. The leaves are a rich, metallic green color with curved lateral veins which are sunken, giving the plant a beautiful, quilted look. The inflorescence (the part of the plant which holds the flower or flower cluster) is white and the spathe (modified leaf or bract, which encloses the inflorescence) is a pretty, pale green. These flowers will remain for several weeks.

In its native habitat of wet, tropical forests, this plant is usually found growing as an epiphyte, making its home in the crotch of a tree, or climbing the trunk. This plant is very striking and especially prized for its handsome leaves which may grow from two to four feet long. It will make a beautiful statement in the newly renovated tropical Conservatory.

Inside for the winter

Autumn's arrival signals us to begin shifting our horticultural focus from the outdoor garden to the interior of the home. Over the warm weeks of summer, houseplants allowed to spend the season on sheltered patios and under protective cover outdoors have grown luxurious and can now fill indoor rooms and windows. If we haven't already experienced a significant frost, herbs should be potted and brought inside to flavor the harvest of the kitchen garden. Occasionally, you may even want to bring in unique annuals, simply to enjoy a little while longer before they are totally exhausted for the season.

Wise gardeners should be very watchful in the first weeks after bringing these plants into the home. Plants should be carefully checked for insect pests before

they are reintroduced to the indoors. Any plant with whitefly should probably be discarded. Whitefly is extremely difficult to eradicate and will spread quickly if left unnoticed. A few plants that can be replaced are not worth the chance of an outbreak of this problem.

Plants will react to the lower light and shorter days by shedding some leaves. They may turn yellow before dropping and are usually not an indication of a serious problem. Rotating plants regularly will ensure maximum exposure to light to maintain an even growth habit. When furnaces begin operating, air humidity decreases. Grouping plants together and using pebble trays beneath plants will help to maintain higher humidity.

When the snow flies and the temperature plummets, the indoor garden provides the green fix that sustains the spirit of the gardener. Plants add ambiance and natural beauty to our interiors, giving us the pleasure of the garden year-round.



Tender herbs can be overwintered and enjoyed indoors.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.



Autumn mulching and winter watering will help trees and shrubs to survive the upcoming winter.

Q. What can I do to prepare my trees, shrubs and evergreens for the winter?

A. The most important need of these plants during the winter months will be adequate soil moisture. You can help provide this by periodically "deep watering" the soil around them as the colder months approach with up to an inch of water per week. It's a good idea to wait for the leaves to fall from deciduous trees and shrubs before starting this regime. Mulches can help conserve soil moisture. Avoid excessive pruning in the fall as bud break and new growth could be encouraged. Don't fertilize trees and shrubs at this time. During winter, woody plants may need water following periods longer

than three weeks without moisture. Try to keep mental notes about climatic conditions in your own neighborhood, i.e. are temperatures and precipitation above or below normal? Have drying winds been frequent? Tree wraps are of little value except perhaps on thin-barked species during their first winter season.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.

"The Practical Landscape"

Boost your landscaping IQ at the Practical Landscape Symposium on October 3 from 8:30 a.m. to 3 p.m. Local horticultural experts will explain landscaping follies and faux pas; pruning horrors from corndogs to lollipops; the sacred bluegrass lawn; torturing the landscape; perennials, the good, the bad, the easy. The cost is \$46 for members, \$57 for nonmembers and includes lunch. Please call 303-370-8020 to register.

Orchid show and sale

The Denver Orchid Society will host its fall show and sale from 10 a.m. to 5 p.m. on October 10 and 11. Mitchell Hall will be full of judged displays containing hundreds of orchids in full bloom, books and orchid supplies. Four national growers will be on hand to help beginners and collectors find just the right plant from a selection of cattleyas, paphiopedilums, laelias, oncidiums, dendrobiums, phalaenopsis and many more. Call 303-370-8187 for more information.

African violet sale

The Rocky Mountain African Violet Council will hold its annual fall sale on October 17 from 9 a.m. to 4:30 p.m. in Mitchell Hall. A nonjudged display of African violets and gesneriads will be shown in conjunction with the sale. For information, please call Nelly Levine at 303-423-6072.

Conservatory public opening

Mark November 20 on your calendar for the grand reopening of Boettcher Memorial Conservatory. The members-only celebration will be held from 4 to 8 p.m. and will include tropical entertainment, food and craft demonstrations by Polynesia-Pacifica Foundation of Colorado. Cost is \$10 for adults, \$5 for youth 15 and younger and free to children five and younger. For tickets or more information, please call 303-370-8187. Festivities will continue throughout the opening weekend during regular Gardens' hours.



Culinary Medicinals*



Free Day at York Street
Botanical Art and Illustration Today*
Edible and Medicinal Plants of

the Front Range*



Bonsai Society meeting Negotiating with the Native Landscape Design Worksh

11

Denver Orchid Society Show & Sale

12

Mycological Society meetingHorticulture Workshop* (Hort. Therapy)

13

Cactus Society meetingBeginning Drawing Plants
Pen and Ink*



18

Begonia Society meeting18-23 DBG Trip to Grand Canyon*
Behind-the-Scenes Greenhouse Tour*

19

Botany for Gardeners*

20

Bonsai Society worksho Colorado's Great Gardens

KEY FOR CALENDAR

Bold blue type = Gardens events
(V) = Volunteers are needed.
Call Dorothy Pate, 303-429-8602.

Bold black type = Plant Society eventsRegular black type = Classes
(CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION: Gardens events 303.370.8187 Plant Society events 303.370.8097 25

Goblins in the Gardens (V) (members only)



26

Ultra Violet Club meetingColor Theory: Mixing Colors*

27

Native Plant Society me Curanderismo, Legacy of 13

Classes 303.370.8020



BELIZE

RAINFORESTS, REEFS AND RUINS
JANUARY 29 TO FEBRUARY 8, 1999

The warm climate of Belize sustains over 250 orchid varieties, 500 exotic bird species and is home to the elusive jaguar. During this exotic adventure, we will explore lush tropical rainforests, subtropical savannahs, jungle-shrouded mountains, Mayan ruins and the barrier reef. Butterflies darting among ancient stones, water falling a thousand feet, huge iguanas sunning themselves along green crystalline rivers and howler monkeys screaming in the high jungle canopy are all a part of an unforgettable expedition to Belize. We will complete our tour on Ambergris Caye, an island off the coast of Belize, where we will have ample opportunity to explore the largest reef in the Western Hemisphere. Teeming with over 200 types of fish and hundreds of invertebrate species, this is truly a snorkeling paradise. We will be accompanied throughout our tour by expert local naturalists and a tour host from DBG.

The price of this 11-day tour is \$2995 per person from Denver and includes: *all airfare*, lodging (unique jungle lodges and hotels), meals (except 2 lunches & 1 dinner), activities and guiding services. A \$400 deposit per person is required upon registration, with final payment due November 20. The trip is limited to 15 participants.

This trip is considered "moderate" in activity level due to the hot, humid climate and the condition of some jungle trails. Hikes are generally two to four miles in length. While most hikes are not vertically challenging, jungle trails can be muddy, rooted and slippery. Canoeing is on a gentle river. Snorkeling requires no previous experience.



For information call Pam Rathke,
Denver Botanic Gardens' Travel Coordinator, at 303-370-8051.



GARDENS, MUSEUMS AND POUSADAS APRIL 13 TO 27, 1999

Madeira, an exotic island located off the coast of Portugal, is a gardeners' paradise. The unique vegetation provides the island's landscape and gardens, with spectacular floral displays. And... this trip is scheduled during their annual "Flower Festival." Mountain hikes, coastal walks and village tours will allow us to fully enjoy this botanical wonderland. In Portugal, we will explore the sites of the central and northern regions including Lisbon, Setubal, Estremoz, Coimbra, Nazare, Sintra, Obidos, Monserrate and the Bucaco Forest. We will discover the richness of the Portuguese culture with visits to museums, monasteries, palaces and gardens. Visits to coastal "white-washed" villages will be a memorable highlight of this tour. (An optional sevenday extension to Spain will also be offered.)

The price of this 15-day tour is \$4595 per person from Denver and includes *all airfare*, lodging, ground transportation, most meals, activities, entry fees and guiding services. A \$500 deposit is required by November 13 with final payment due January 15. The trip will be limited to 20 participants.

This trip is rated "easy." Most walks are of short duration and distance with a few "moderate" hikes.





>>> Denver Botanic Gardens

Attn: Development Department

Denver, CO 80206 909 York Street

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Mr. 1Ms.
Address
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Check here if you or your spouse work for a company that provides matching support.
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Signature
☐ Check here if you are interested in receiving information on planned giving. ♣ Please print ♣



Honor or remember family, friends and loved ones.

SANTA FE, NM

7TH ANNUAL WILDFLOWER TOUR JUNE 17 TO 20, 1999

This early summer weekend tour of northern New Mexico will certainly reveal why this state is known as the "Land of Enchantment." Spanish, Mexican, and Native American influences are explored through visits to museums, churches, galleries and private gardens. Special receptions, dinners and tours are planned at the Fechin Institute and the Sol Y Sombra Estate. Museum tours in Santa Fe and Taos include the



Museum of International Folk Art, Museum of Indian Arts and Culture, the Millicent Rogers and Harwood Museums. Along the way we will enjoy the beautiful landscape and robust cuisine of New Mexico. Lodging will be at the charming Fechin Inn and Hotel Santa Fe. DBG trip hosts are Barbara Baldwin and Knobby Brown.

Judy Sellers, a landscape designer, author and photographer with 50 years' exposure to New Mexico's history, tradition and culture, will serve as a special local host.

The price is \$795 per person and includes: motor coach transportation from Denver, lodging, most meals, entry fees and guiding services. A \$200 deposit is required by January 22, with final payment due March 19.

The trip is rated "easy." Walking tours of short duration and distance can be expected.

BRECKENRIDGE, CO

WILDFLOWER WEEKEND JULY 16 TO 18, 1999

Join fellow Denver Botanic Gardens' members for a weekend in the beautiful mountain town of Breckenridge. Wildflower viewing should be incredible at locations such as the Hoosier and Boreas Passes. We will be hosted to special receptions, a barbecue dinner and a cultural event. Free time will be available for whitewater rafting, mountain biking, golfing or shopping. Our special tour hosts will be Panayoti and Gwen Kelaidis.

The price is \$295 per person and includes: 2 nights lodging, most meals, activities and guiding services. A \$50 deposit is required by February 19, with final payment due April 16.

The trip is rated "moderate." Hiking trails will be at tree-line, may be one to two miles in length and over uneven terrain.



BEST OF ALASKA

MOUNTAINS, TUNDRA, RIVERS AND FJORDS AUGUST 8 TO 19, 1999

Our 12-day adventure to America's "last frontier" enco offer. From the glacial waters of the Kenai fjords to the explore the incredible diversity of flora and fauna. Our flower and wildlife treks through tundra, wildlife refut the lush foliage, there are great opportunities to see caribou and whales. The tour begins with a float trip of hiking in Kenai National Park, cruising the Kenai Fjord Region of Denali Park. Our trip ends with a ride on the We will lodge in cozy backcountry cabins and dine on explore this scenic wildland!

The price is \$3995 per person and includes: all lodging, land and vand guiding services. A \$400 deposit is required by December 18 valimited to 15 participants.

This trip is rated "moderate" in activity level. A variety of hiking trange from two to six miles and are flat to relatively steep. Particip Mountain biking is available at Denali Backcountry Lodge.

For more information on this adventure to Alaska, please plan to a tation on Tuesday, November 10 at 7:30 p.m. in Mitchell Hall at Der 8051 to register.





family, friends and loved ones.

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MOUNTAINS, TUNDRA, RIVERS AND FJORDS AUGUST 8 TO 19, 1999

Our 12-day adventure to America's "last frontier" encompasses the best Alaska has to offer. From the glacial waters of the Kenai fjords to the mountains of Denali, we will explore the incredible diversity of flora and fauna. Our expedition will take us on wildflower and wildlife treks through tundra, wildlife refuges and boreal forests. Besides the lush foliage, there are great opportunities to see eagles, moose, bear, sea lions, caribou and whales. The tour begins with a float trip down the Kenai River and includes hiking in Kenai National Park, cruising the Kenai Fjords and exploring the Kantishna Region of Denali Park. Our trip ends with a ride on the world-famous Alaska Railroad. We will lodge in cozy backcountry cabins and dine on hearty Alaskan fare. Come explore this scenic wildland!

The price is \$3995 per person and includes: all lodging, land and water transportation, most meals, activities and guiding services. A \$400 deposit is required by December 18 with final payment due April 7. The trip is limited to 15 participants.

This trip is rated "moderate" in activity level. A variety of hiking trails will usually exist for all abilities. Hikes range from two to six miles and are flat to relatively steep. Participants do not need to paddle on the raft trip. Mountain biking is available at Denali Backcountry Lodge.

For more information on this adventure to Alaska, please plan to attend a special preview slide show presentation on Tuesday, November 10 at 7:30 p.m. in Mitchell Hall at Denver Botanic Gardens. Please call 303-370-8051 to register.





Honor or remember family, friends and loved ones.



ROCKY MOUNTAIN NATIONAL PARK MUSHROOM HUNT

AUGUST 28 AND 29, 1999

Grab your hiking boots and join other mushroom enthusiasts as we take to the trails of Rocky Mountain National Park in search of elusive fungi. Expert mycologists from the Gardens will lead participants on several trails in the park to find and identify local mushrooms. A barbeque dinner Saturday night may give us an opportunity to sample our treasures.

Price is \$40 per person and includes dinner Saturday night, and guiding services. Registration and payment are due May 21. Participants may wish to camp or lodge in nearby towns.

The trip is "easy-moderate." Hikes will be relatively easy but may be four to six miles long.

SOUTHERN CALIFORNIA EXPLORER

SANTA BARBARA, PASADENA, LOS ANGELES AND SAN SIMEON OCTOBER 5 TO 10, 1999

Join other Denver Botanic Gardens' members on this fall tour of Southern California. We will visit renowned museums and gardens such as the Getty, Huntington and Lotusland. A variety of exquisite private and public gardens will allow us to see the spectacular flora of the area. Historical tours as well as special receptions and dinners are planned. And, no trip to this area would be complete without an excursion to San Simeon for a tour of the Hearst castle.

The price is \$1395 per person and includes: lodging, ground transportation, most meals, activities, entry fees and guiding services. A \$400 deposit is required by May 7, with final payment due July 9.

The trip is rated "easy." Walking tours of short duration and distance can be expected.

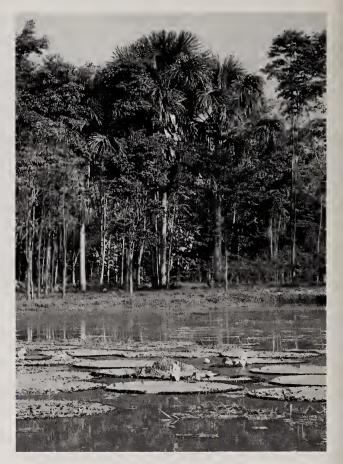


Tours for Educators

THE AMAZON RIVER
JUNE 11 TO 19, 1999

Come explore the steaming jungles of the Amazon and receive continuing education credits in the process. Iquitos, Peru, located 2300 miles up the Amazon River, will be our port of entry for this tropical expedition. Jungle hikes through primary and secondary rainforests will expose us to the broad diversity of plant and animal species. There will be numerous excursions on the Amazon, its tributaries and adjoining lakes to study this complex ecosystem. Studies will focus on biodiversity, hydrology, ecology and ethnobotany. Visits to local villages will provide great opportunities for cultural exchange. (An optional extension to Lima, Cusco and Machu Picchu will be offered.)

The price of this 9-day tour is \$2395 per person and includes: continuing education credits (TBD), airfare from Miami, lodging, most meals, land and water transportation, activities and guiding services. A \$400 deposit is required by February 5 with final payment due May 7. The trip is limited to 15 participants.



This trip is rated "moderate" due to the hot, humid climate and the condition of some jungle trails. Hikes are generally one to three miles in length.

TRIP ACTIVITY RATINGS

To help you decide which trip is right for you, DBG has created an activity rating scale: easy, moderate and strenuous. "Easy" trips generally involve walking, and, or light hiking for short durations and distances over gentle terrain. "Moderate" trips are a little more difficult and can involve hiking for two to six miles over more challenging terrain. "Strenuous" trips involve activities that require excellent physical fitness and can involve hiking five to ten miles a day over varied terrain. Both "moderate" and "strenuous" trips involve other activities such as rafting, climbing, canoeing, bicycling or kayaking. Please call for any clarification or further explanation. For all of our trips, we require that the participant be physically fit and healthy. This will allow you and those traveling with you to fully enjoy the trip.

RESERVATIONS AND PRICING

Denver Botanic Gardens' trips fill very quickly, so we advise early registration. If you would like additional information, such as a detailed itinerary, or would like to register for a tour, please call Pam Rathke, Denver Botanic Gardens' Travel Coordinator, at 303-370-8051. All prices are based on double occupancy and may be subject to change.

(Bonfils-Stanton Lecture)



The goblins are coming!

DBG's members-only "Goblins in the Gardens" is a fun, safe way to celebrate Halloween. You can have a gobliny great time trick-or-treating through the Haunted Trail, creating creepy crafts and enjoying fang-tastic food and many monster munchies!

Due to its popularity, Goblins in the Gardens will be held for two days this year — on October 24 and 25 from 1 to 3 p.m. or 4:30 to 6:30 p.m. Members will receive invitations in the mail and should specify their desired time on the reservation form. For telephone reservations call 303-370-8187 with a Visa or MasterCard number beginning September 28. Space for this event is limited, so make reservations early.

Come in costume — or else!

1998 tax deductions for memberships

The amount you can deduct from your income tax depends on your level of membership and the amount you paid for it. For Gardener, Landscaper and Arbor Circle members, all but \$8 of what you paid is tax deductible; Botanist Club, all but \$40; Conservators' Society all but \$72; and, for Perennial Partner, all but \$144 is deductible.



A romantic evening to remember

The August evening was pleasantly warm, the waterfall sounds refreshed and candle lights shimmered on the ripples in the long pool. The sounds of Mozart wafted from one of the new pavilions. Flower beds and giant potted plantings were stunning and almost 1,900 guests strolled about, munching and sipping delights provided by over 21 local restaurants, candy shops, coffee merchants, Colorado wineries and breweries. One overheard comment summed up the experience for nearly everyone, "The best evening I've spent in years!"



Five tips for year-end giving

If you're like most people, you do your major giving toward the end of the year. This probably occurs for several reasons. The closing of the tax season encourages itemizers to obtain income tax deductions; a barrage of earnest appeals by nonprofits increases awareness of financial need; and many are simply predisposed to end the year by making a charitable gift.

Here are five tips to help you make the most of your year-end giving.

- 1. Calculate Your Income. Try to get a handle on your tax liability for the year. Did your unearned income increase? Did you sell any appreciated assets? Will you owe more taxes? This alone may motivate you to increase your giving before December 31. In fact, you may even want to move some of your giving forward from next year to create a larger income tax deduction for yourself this year. Nonitemizers may especially find this "grouping of gifts" useful in order to take advantage of an itemized tax return every other year. In any case, by the time you fill out your income tax return, it will be too late to make charitable gifts for the previous year. Take the time to do some planning while you still have the opportunity to make a year-end gift.
- 2. Review Your Stocks. Look at the stocks you have held long term. Which ones have appreciated the most? It may be prudent for you to make your year-end gift using one or more of these stocks. Here's why: If you sold the stock, you would incur capital gains tax on the appreciation. However, if you give the stock and allow Denver Botanic Gardens to sell it, no one pays tax. And you get a charitable deduction for the full amount of the stock, just as you would if your gift was made with cash. And what's more, if you can't use all of the charitable income tax deduction resulting from the gift, you can carry it forward for up to an additional five years. Such gifts are deductible up to 30 percent of your adjusted gross income.
- 3. Consider a Life-Income Gift. Denver Botanic Gardens offers a variety of lifeincome plans to fit your needs. You can make a gift now, obtain tax benefits and receive income for the rest of your life. Sound too good to be true? A DBG development officer can provide personalized illustrations and printed material to assist you and your advisors.
- 4. Do Your Giving Early. This is especially true if you want to make a gift of noncash assets (stock, real estate, etc.). It also applies to life-income gifts (gift annuities, pooled income fund contributions, trust arrangements, etc.). Your professional advisors are busy as the year winds down. The sooner you can get your gift activity going, the better.
- 5. Talk to Your Advisor. Before making any significant gift to a nonprofit, you should have your CPA, attorney or other advisor help you understand the impact of your gift on your income tax return or estate.

For more information about the year-end giving opportunities at Denver Botanic Gardens, contact Jennifer Darling at 303-370-8027.



Want ads work!



A DBG Research vehicle has been found! We would like to thank Dr. Steven

R. Mostow for his donation of a Jeep Grand Wagoneer to our endangered plants research program. This vehicle will be of great help to Carol Dawson and her team. Also, Thank you to Gary Anatta, Manager of Harmon Auto Glass, for supporting DBG through installation of a windshield replacement for the vehicle. The DBG Research Vehicle is now ready to roll!

Memorials and Tributes

In honor of Kathryn Kawakami Mr. and Mrs. David Touff In memory of Patricia Edwards Betty I. Naugle **Happy Birthday to Beverly Triefus** Mrs. Viola Lowen

In memory of Mamie Bean Joan Hinkemeyer

In memory of David Dunklee Mr. and Mrs. Richard A. Kirk In memory of John Brock

Mr. and Mrs. Richard A. Kirk In memory of Mrs. Loretta Germain Corkill

Mrs. Maureen Gamble In memory of Mrs. Charlotte Callaway

Mrs. Anna E. Craig In memory of Laurita M. Hess

Alan J. Hess

MAKE AN IMPRESSION TO LAST A LIFETIME

Help pave a path through the new Romantic Gardens by purchasing a brick engraved with your name. A red brick paver can be purchased for \$200 or an elegant gold inlaid signature brick for \$1,000. Please call 303-370-8030 for information.

Environmental certificate program in demand

The Environmental Science Certificate Program has met with great success in its first year. Introduced last summer, the program is a joint effort between DBG and the Colorado School of Mines. Geared toward K-12 teachers, naturalists and park or nature center interpreters, the program focuses on enhancing the student's knowledge of, and skills in, environmental education.

Graduate-level recertification credit is offered to program participants through the Colorado School of Mines. The courses focus on inquiry-based learning and science process skills, while emphasizing observation, analysis and critical thinking. All courses relate to the Colorado Model Content Standards.

To receive the certificate, participants must successfully complete the six-class series plus one workshop. Classes are held June through August during weekdays. Please call 303-331-5777 for more information.

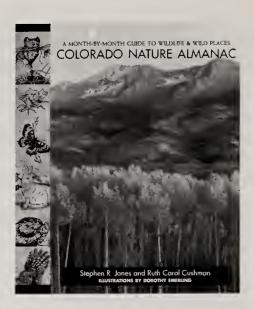


Your book donations benefit the library's book budget.

Wildlife and wild places

Explore Colorado's natural wonders throughout the seasons with Steve Jones and Ruth Carol Cushman, co-authors of the *Colorado Nature Almanac*, on Wednesday, November 4 at 7 p.m. Their slide presentation, the 1998 Tempel Nature Lecture, highlights wildflower displays, wildlife concentrations and undisturbed ecosystems.

In Colorado, wildflowers bloom in midwinter and snow sometimes falls on the Fourth of July, but natural events follow distinct and predictable cycles. Steve and Ruth Carol will reveal what to expect



during these cycles. Along the way, you'll learn the answers to such perplexing questions as why Easter daisies bloom in December, why hummingbirds go crazy over the color red, how ptarmigan survive alpine winters, and how nature's clock governs the lives of the plants and animals.

Steve Jones, an environmental consultant and part-time teacher of adult education programs, has a special interest in birds of prey. He is the author of *The Short Grass Prairie* and *Owls of Boulder County*. Steve collaborated with Ruth Carol Cushman, a retired reference librarian, to author *Boulder County Nature Almanac*. Ruth Carol also has authored the *Boulder County Hiking Guide*.

The Tempel lecture and slide program, which emphasizes wildflowers and animals of Colorado, was begun in 1979 to honor Major General Carol W. Tempel, a wildflower photographer. Immediately after the program, Steve and Ruth Carol will autograph copies of their book, *Colorado Nature Almanac: A Month-by-Month Guide to Wildlife and Wild Places*, which will be available that evening in the Gardens' Gift Shop. The program begins promptly at 7 p.m. in Mitchell Hall. The cost is \$8 for members and \$12 for nonmembers. To register for the lecture call 303-370-8020.



The Garden Plot

From the Helen Fowler Library

Help us with the book sale

Summer is over. We're settling back into our autumn and winter routines, while the holidays loom on the horizon. If you get the urge to do a little fall housecleaning and come upon a cache of used books, don't throw them out. Give them to the DBG library instead!

Although our annual book sale doesn't take place until Mother's Day weekend in May of 1999, volunteers have already sorted and priced books donated in the summer. In fact, the volunteers will be twiddling their thumbs if you don't give now!

We accept all kinds of books except Reader's Digest Condensed Books and old textbooks. We also accept gardening magazines. (We don't accept any other kind of magazine. They just don't sell for us.) To arrange to deliver your book treasures to the Library, please call 303-370-8014 any day from 9 a.m. to 5 p.m.

Feel good about giving. The proceeds of the book sale become the book budget for the Helen Fowler Library. We appreciate all you can give.

Colorado's great gardens

Take a look behind the front gates of "Colorado's Great Gardens," when you join local gardening authority Rob Proctor on Tuesday, October 20 at 7 p.m. in Mitchell Hall. Rob will reveal the trials, tribulations and joys that gardeners have found in adapting their gardens to the unique climate of Colorado. Rob's program is based on his new book, by the same title, which he co-authored with Georgia Garnsey, a former gardening editor at *Colorado Homes & Lifestyles* magazine.

From Karen Perin's rose gardens, thriving in the mountains of Center, Colorado, to Dorothy Martin's sweet peacovered fence along a remote highway, to

the organic gardens of Tim and Laura Spear at ForestEdge, you'll see that Rob's featured gardens have one thing in common — they reflect the regional landscape. Each garden speaks volumes about its creator's imagination, sense of design and fortitude in the face of seemingly impossible growing conditions.

Proctor lives a gardener's life, growing, photographing and



writing about the plants he loves. A frequent guest on the Discovery Channel, Rob is the author of eight books.

The cost of the program is \$8 for members, and \$12 for non-members. You are encouraged to preregister for the lecture by calling 303-370-8020 or 303-370-8019.



Pollen stains as viewed through a microscope.

Beyond bean seeds

Two ambitious high school teachers, sponsored by the Colorado Alliance for Science, worked with DBG educators this summer to create lab kits for secondary science classes. Each kit includes extensive activity plans and the special equipment necessary to conduct experiments. In a world where school botany often consists of growing beans in a window, DBG lab kits help teachers demonstrate that plants are relevant and exciting.

The Pollen Kit encourages a thorough investigation of pollen. Students collect, stain and examine pollen under microscopes to determine its method of dispersal. They also explore "human" aspects of pollination through air quality analysis. Kit creator Joy Kay explains, "Students will like the kits because the research is authentic. They actually compare their data to the state numbers. Teachers will use the kits because they are completely self-contained and require minimum preparation."

The DNA Extraction Kit, designed by Jo Moore, supplies the materials and know-how for just that: extracting DNA from plants. Students use the extracted DNA as a tool to help understand plant development.

Both lab kits are available to teachers for a refundable deposit. Call 303-331-5777 for information.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

Return service requested

Non-Profit Org. U.S. Postage PAID Denver, CO Permit No. 205

DON'T MISS...



Furnish your home with garden-style furniture and create the ambiance of patio living all year long. The Gift Shop carries an assortment of wrought-iron and rattan chairs, tables and plant stands. Complement your garden decor with a variety of baskets, pots and curio cabinets.

Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, C0 80206

Editor: Julie Behrens Designer: Julie Rudofsky **Hours**

Open daily from 9 a.m. to 5 p.m. with extended hours May-Sept.

 General information
 303-331-4000

 TDD
 303-370-8032

 Dr. Green plant information
 303-370-8068

 Tues. and Thurs., 1 to 3 p.m.

Plant*talk* (24-hour) 1-888-666-3063 recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m. **Offices**

Mon. through Fri., 8 a.m. to 5 p.m.

Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049 **Chatfield Arboretum** 303-973-3705

Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: "Pumpkin Festival" courtesy of The Denver Post.





From the Top

News from the Executive Director

November 8, 1998 marks the 10th anniversary of the Scientific and Cultural Facilities District (SCFD). It was just ten years ago that the six county district approved the creation of SCFD. Currently, the one-tenth of one percent sales tax supports more than 300 organizations within Adams, Arapahoe, Boulder, Denver, Jefferson and part of Douglas County. In November 1994, this special tax was again overwhelmingly approved until 2006.

The support of SCFD discretionary funds allows us to focus on furthering the mission of DBG to share and advance the knowledge and enjoyment of plants for the people of our community and beyond. We have placed an emphasis on projects that carry our message to a variety of audiences and provide excellent visitor experiences. SCFD funds are significant in allowing the Gardens to share the beauty of plants while also teaching about their role in our lives as sources of food, shelter, medicine and the air we breathe.

In furthering our mission of providing top-quality plant science education, many educational programs have been supported by SCFD. These funds were used to initiate the Horticultural Therapy Certificate program and offer the Environmental Certificate program through Colorado School of Mines. Implementation of both programs involves the development of quality curricula, creation of brochures and class materials, advertising and promotion, and staff time for summative evaluations of students' and instructors' performance.

Ed Connors, a Life Trustee of the Gardens put it best..."The citizens of the six county district deserve credit for visualizing the merits of and approving this tax."

John B. Proffitt, Interim Executive Director



The Wild Side

News from Chatfield

A Tree-mendous day to enjoy Chatfield Arboretum

On December 5 from 10 a.m. to 4 p.m., Chatfield Arboretum will host the third annual "Tree-mendous Kickoff" to Denver Botanic Gardens' "Blossoms of Light." During this special fund-raising event, families can enjoy a day in the country while shopping for freshly-cut, high-quality Christmas trees, wreaths, crafts and honey. Seasonal refreshments will be sold and children can have their picture taken with Santa in the historic Hildebrand farmhouse and make special holiday crafts in the Deer Creek Schoolhouse.

The two kinds of trees available are Noble fir and Douglas fir. Members can take advantage of early-bird discounts of at least 20 percent by ordering trees and wreaths by November 25. Please mail or fax the order form on page three with your payment and pick up your Tree-mendous tree at Chatfield Arboretum on December 5. This is a fun and beautiful time to enjoy all that Chatfield Arboretum has to offer.

Admission to the sale is free. For information, call 303-973-3705.



The construction crew has done a remarkable job of completely renovating the Boettcher Memorial Conservatory. The horticulture staff is now adding the final touches to create a lush, tropical forest environment. Members will have their first chance to experience this magnificent landmark at the grand reopening on November 20.



Congratulations to the October
Employee of the Month, Chuck
Robinson, Information Systems Manager.
Computer support and problem solving
make for a hot-spot environment but he
manages to remain cool. Everyone
depends on Chuck's expertise and his
dedication is greatly appreciated.



The Holiday Gift and Garden Market will offer a wide variety of garden-themed holiday goodies including handmade crafts, delectable foods and decorative items.

Cover Story:

7 The 7 Tropics Return to Denver

The much-anticipated grand reopening of the Boettcher Memorial Conservatory will be celebrated with a members-only preview party on Friday, November 20 from 4 to 8 p.m. Festivities include tropical foods, craft demonstrations and entertainment provided by Polynesia-Pacifica Foundation of Colorado. The entertainment will feature fire dancers and traditional dancers from Hawaii, New Zealand, Samoa, Tahiti and Fiji.

Tickets for the preview party are \$10 for adults, \$5 for youth 15 and younger and free to children five and younger. You may reserve tickets by calling the events message line at 303-370-8187. Festivities, for the general public, will continue throughout the weekend for the price of general admission or free to members.



Holiday sounds abound

Denver Botanic Gardens is excited to announce a partnership with Swallow Hill to present the 1998 Holiday Concerts series. Swallow Hill is Denver's home for folk and acoustic music and was the winner of the 1998 Mayor's Award for Excellence in the Arts. Swallow Hill is America's second largest folk music school and their award-winning concert series presents 130 shows a year.

The music schedule for the 1998 Blossoms of Light Holiday Concerts includes the exquisite singing of Mollie O'Brien & the E-Tones on Wednesday, December 9; Celtic music from Ireland and Scotland performed by Colcannon on Thursday, December 10; and, the acoustic swing orchestra music (dancing is encouraged) of Chris Daniels & the Kings O' Swing on Tuesday, December 15 and Wednesday, December 16. Ticket prices are \$12 for members and \$14 for nonmembers. Gates open at 6 p.m. so plan on arriving early to view the lights; concerts begin at 7 p.m.

Tree-mendous Early Bird Order Form Enclosed is \$______for the following:

Tree Type Quantity Price Size Wreath size Quantity Price Name Address City Zip Day Phone **Evening Phone** Member of Denver Botanic Gardens? ☐ Yes ☐ No Member ID # (on top line of address label on this GTN) 🗇 Cash 🗇 Check 🗇 Visa 🗇 MC Exp. date Signature

Mail to Chatfield Arboretum, 8500 Deer Creek Canyon Rd, Littleton, CO 80128. Or fax credit card order to 303-973-1979. To be eligible for the discount this order must be postmarked by Nov. 25. Make checks payable to Chatfield Arboretum. For information, call 303-973-3705.

.\$21

.\$25

.\$29

.\$33



4'

5'

6'





Noble Fir	Douglas Fir
\$42	3'
	4'
	5'
	6'

Worth the Wait

After years of planning and months of waiting, the renovation of the Boettcher Memorial Conservatory has been completed. The 13,000-square-foot Conservatory, originally built in the 1960s and now designated a City and County of Denver landmark, has received a complete makeover.

Primarily, new electrical and mechanical systems were added, complete with new heating registers and cooling pumps, fans to increase air circulation and a new humidification system which will fill the air with enough moisture to put any muggy tropical climate to shame.

Though these changes may not be obvious to the visitor, they were essential modifications that allow the Conservatory to house plants from tropical forests throughout the world.

The new banyan tree, however, is a change the visitor will immediately notice. Featuring an elevator to allow



Commonly known as angel's trumpet, Brugmansia insignis, displays fragrant showy flowers several times a year.



The exotic, striped markings of Vriesea fosteriana 'Red Chestnut', will attract attention as it grows epiphytically on the banyan tree in the Conservatory.

handicap access to the viewing decks above, this textured cement replica of a 65-year-old banyan tree has bark realistically peeling off the trunk and big buttress roots emerging from a pond. Above all, the tree provides the perfect backdrop to display some of the bromeliads and orchids from the Gardens' collections. These plants are epiphytes that grow naturally on the branches and trunks of trees and will provide a stunning display on the branches of the banyan. One example, Werauhia (Vriesea) sanguinolenta 'Rubra', is a bromeliad which has deep, rich maroon colored leaves and can hold up to 10 gallons of water within its crown. Flowering at night, it is primarily pollinated by bats in its native habitat.

Surrounding the new stream, rock outcrops and pond, are true tropical plants. These are plants whose origins lie between the Tropic of Cancer and the Tropic of Capricorn. Many different types of tropical plants will be displayed in the Conservatory to illustrate the diversity that is naturally found in a tropical forest. Only 7% of the earth's surface is covered in tropical forests, but 50% of the world's plant and animal species

inhabit this area. These include graceful palms, prehistoric cycads, twining vines, fragrant trees and shrubs. *Cananga odorata*, located in the Conservatory, is an elegant tree whose flower blossoms provide the fragrance for Chanel #5 perfume.

Plants for the Conservatory were obtained from sources across the country. Some are considered rare in cultivation or endangered in their natural habitat. One beautiful palm, *Pritchardia remota*, is found only on the basalt cliffs of

two valleys on a Hawaiian island. Custard apple (*Annona squamosa*) is a tree known for its tangy fruit. It also has medicinal properties and has been used by indigenous people to treat malaria for generations. A trip to the Conservatory will provide a unique opportunity to indulge in a sultry journey to the tropics without having to leave our semiarid climate of Colorado.

Julie McIntyre, Horticulturist



The fruit of the clown fig (Ficus aspera 'Parcelli') appears on the trunk of the tree.

Orchids — Jewels from the rain forest

Despite their reputation as delicate glasshouse prima donnas, many species and hybrids of tropical orchids are quite adaptable to cultivation in the home. Some will thrive on windowsills; many can be grown under artificial lights. The key to success is to understand the habitat you can provide for them and choose only those that will grow in such conditions.

Tropical orchids are generally classified as "cool," "intermediate" or "warm" growing types and are further segregated by the amount of light they require. Patience is required as most are rather slow growing and orchid plants that are not in flower have little appeal. It often surprises people to learn that many kinds flower only once a year. Fortunately, their blossoms are often quite spectacular and are longlasting. It's fun and challenging to develop a small orchid collection with the goal of having plants that flower in every season.

There is plenty of help available for orchid hobbyists on the shelves of DBG's Helen Fowler Library. The Education department periodically offers classes on orchid care. Consider joining the Denver Orchid Society which meets at 7:30 p.m. on the second Tuesday of each month (except June and July) at the Bonnie Brae Baptist Church. The group offers an abundance of programs and activities to members and has opportunities to acquire orchid plants inexpensively at meetings.



Moth orchids (Phalanopsis spp.) feature beautiful, long lasting flowers, and adapt easily to windowsill culture.

Additionally, DBG provides a home for the Rocky Mountain Regional Judging Center of the American Orchid Society. Their gatherings are open to the public on the second Saturday of each month at 7 p.m.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.



Flowers emerge from the vase of Guzmania sanguinea, one of the many kinds of bromeliads available for indoor gardens.

Q. Do you have any advice on caring for a tropical bromeliad?

A. The care will be similar whether your bromeliad is an Aechmea, Billbergia, Neoregelia or another of the many epiphytic species and hybrids of the pineapple family. Most thrive in average to warm household temperatures. Avoid locating them in drafts. The majority prefer no less than bright, indirect light. Bromeliads are generally grown in small pots in soils that are rich in organic matter but quick draining. In addition to watering the soil when dry, it is important to keep the "vase" formed by their foliage filled with water too. After their long-lasting flowers fade, the rosette begins to die. Offsets are usually produced which may be grown into a new plant that will flower in a couple of years.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call. SCFD 10th Anniversary, November 7 & 8

To thank metro area voters for approving the creation of the Scientific and Cultural Facilities District, the SCFD will host an open-house style Community Thank You Celebration on the weekend of November 7 and 8. All SCFD-funded organizations will present free programs and events. Admission to the Gardens and SCFD programs at DBG will be free of charge. Please see calendar listings for specific events and times or call 303-370-8187 for information.

Holiday Garden Market, November 13 & 14

Don't miss the Holiday Gift and Garden Market on November 13 and 14 from 9 a.m. to 5 p.m. The market will offer a unique selection of garden-themed holiday goodies provided by the DBG Gift Shop, volunteer groups and outside product vendors. Look for antique botanical illustrations, botanical pottery, handmade paper, herbal seasonings, delectable foods and candies, potpourri, concrete garden troughs, tile tables, fragrances, handmade crafts and more. New to the sale, the Keepsake Collectibles Boutique will offer products such as antiques, silver, lace and glassware that were donated by friends of the Gardens who found these items too precious to give away. If you are interested in donating to the Boutique, please contact Myke Woods at 303-320-8348. Entrance to the Market is free. Call 303-370-8187 for more information.

Conservatory member opening

Celebrate the grand reopening of Boettcher Memorial Conservatory on November 20. The members-only celebration will be held from 4 to 8 p.m. and will include tropical entertainment, food and craft demonstrations by Polynesia-Pacifica Foundation of Colorado. Cost is \$10 for adults, \$5 for youth 6-15 and free to children five and younger. For tickets or information, call 303-370-8187. Festivities will continue throughout the opening weekend during regular Gardens' hours.

Taste Buds — A Garden Snack Shop

Visit Taste Buds in the Lobby Court for a refreshing snack. The menu includes a variety of hot and cold beverages, fruit, salads, sandwiches and desserts. Taste Buds is open daily from 10 a.m. to 3:30 p.m.

KEY FOR CALENDAR

Bold pink type = Gardens events
(V) = Volunteers are needed.
Call Dorothy Pate, 303.429.8602.

Bold black type = Plant Society eventsRegular black type = Classes
(CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION: Gardens events 303.370.8187

Plant Society events 303.370.8097

Classes 303.370.8020

Now Open
TASTE BUDS

TASTE BUDS

3

Bonsai Society meeting

A GARDEN SNACK SHOP!

8



Beeswax Candle Making* (CH)

10

Alaska Trip Preview Slide 7:30 p.m., Morrison Cente Call 303.370.8051 to rsv. Cactus Society meeting

SCFD 10th Anniversary Celebration

1 p.m. - City of Denver Pipe Band 2 p.m. - Golden Eagle Brass Band 4 p.m. - Colorado Irish Pipe Band

Mile High Daylily Society meeting

Begonia Society meeting

16

17

Bonsai Society workshop

22

29

15

Conservatory reopening festivities for the public



23

Ultra Violet Club meeting

24

30



Holiday Concerts

Swallow Hill Music Association. Concerts are from 7-9 p.m. so come early to see the lights for no extra charge. Enrich your holiday season with music! This seventh year of Holiday Concerts brings a new partnership with the

Mollie O'Brien & the E-tones, Wednesday, December 9

If you like exquisite singing then this concert is for you.

Colcannon, Thursday, December 10

Songs from Ireland and Scotland will show case this evening.

Chris Daniels & the Kings O' Swing, Wednesday and Thursday, December 15 and 16.

Bop and boogie to the swinging, orchestral sounds of this favorite regional band

11th annual Teddy Bear Teas

these modified afternoon teas. Children ages 3 to 10 are invited to bring their favorite Teddy bear or doll, along with a fun-loving adult or two, to

Saturday, December 5, Merry-Andrew-Afoot, Story teller and song preformer

Sunday, December 6, Joel Silverman, Theater on the Spot

Saturday, December 12, Joel Silverman, Theater on the Spot

Sunday, December 13, Bob Klimek, Music & Magic

Registration Form

numbers 1 and 2 in the boxes. Please enclose a self-addressed, stamped envelope with all mail orders, and your tickets details, 303-370-8029. For Teddy Bear Teas, please indicate your first and second choices of time and date by using the use the exact name(s) when ordering tickets. If you are not currently a member, call the Gardens for full membership will be mailed to you. Member discounts do not apply to Teddy Bear Teas. to 5 p.m. beginning November 9. (Ticket box office will be closed on Thanksgiving, Thursday, November 26.) To qualify for a reduced price for concerts, you must be a current DBG member at the Arbor Circle level or above, and you must Mail in your order today, or come to Denver Botanic Gardens' box office, 1005 York St., Monday through Friday, 9 a.m.



Denver Botanic Gardens Blossoms of Light December 5 through January 3, 6 to 9 p.m. presented by New Century Energies Foundation

Denver Botanic Gardens becomes a winter wonderland during its annual "Blossoms of Light" holiday celebration December 5 through January 3. The festival has become a Colorado favorite, offering families a wholesome, entertaining holiday activity.

Outhill the Candons will be ables with the constant of twinbling lighter outlines th



vinegars, honey, antique botanical prints, keepsake collectibles, crear

birdbaths, jewelry, wreaths, topiaries, candles, herbal seasonings, creams, keepsake collectibles, soaps, toys,

Denver Botanic Gardens

concrete troughs and stepping stones, wreaths, topiaries, candles,

soaps, ornaments, toys, books, pottery, handmade papers, garden art, Friday, November 15th and Saturday, November 14th 9 a.m. to 5 p.m. Admission is free 1005 York Street 303-370-8187 original botanical paintings, tile tables, pomanders, garden architecti

birdbaths, jewelry, wreaths, topiaries, candles, herbal seasonings, creams, soaps, ornaments, toys, books,



dragonflies that swoop in mid-air, frogs that leap among lily pads and a colorful school of fish are just some of snaped viees and sin abs. more mair 100,000 marviduar ugnes war sparkie, in addicion to bie many ammated light displays. Colorful morning glories that bloom with the rising sun, butterflies that flutter above flowers, the creative displays.

Warm up inside the lobby court, where an impressive display of more than 1,000 poinsettia plants will complement a dramatic holiday setting. Nightly entertainment — carolers, bell ringers, dancers and other musical groups - will excite your senses with the movement, sounds and colors of the holidays.

Each evening seasonal refreshments will be available for sale. The Gift Shop, stocked with holiday cards, ornaments and unique gardening gifts, will be open each night until 8 p.m.

Blossoms of Light Senior Night presented by Secure Horizons

A free night for seniors sixty-five and over will be on December 8. This special evening will offer seniors their own night to stroll leisurely thorough a winter wonderland. Supported by Centura Health.

Admission

Adults \$5

Seniors (65 & older) and youth 6-15 \$3

Children 5 and younger FREE

Adult members \$3

Senior and youth members \$1

Each time you visit "Blossoms" you will receive a ticket for a \$2 per person discount at Denver Zoo's evening "Wildlights."









SecureHorizons Offered by PacifiCare

name(s) on your card when ordering tickets. DBG Membership No. *To qualify for a reduced ticket price you must be a current DBG member at the Arbor Circle level or above and you must use the exact Exp. Date

Concert	Date	# of Tickets	* Member Price	Price	Total
Mollie O'Brien	Wednesday, Dec. 9		x \$12	\$14	
Colcannon	Thursday, Dec. 10		x \$12	\$14	
Chris Daniels	Wednesday, Dec. 15		x \$12	\$14	
Chris Daniels	Thursday, Dec. 16		x \$12	\$14	
Tea	Date	# Adult/Child	Adult Price	Child Price	Total
Teddy Bear Tea	Saturday, Dec. 5 at 11 a.m.	/	x \$15	\$10	
Teddy Bear Tea	Saturday, Dec. 5 at 1 p.m.		x \$15	\$10	
Teddy Bear Tea □	Sunday, Dec. 6 at 11 a.m.	_	× \$15	\$10	
Teddy Bear Tea □	Sunday, Dec. 6 at 1 p.m.		× \$15	\$10	
Teddy Bear Tea	Saturday, Dec. 12 at 11 a.m.	_	× \$15	\$10	
Teddy Bear Tea	Saturday, Dec. 12 at 1 p.m.		× \$15	\$10	
Teddy Bear Tea	Saturday, Dec. 12 at 3 p.m.	_	× \$15	\$10	
Teddy Bear Tea	Sunday, Dec. 13 at 11 a.m.	_	× \$15	\$10	
Teddy Bear Tea	Sunday, Dec. 13 at 1 p.m.	_	× \$15	\$10	
			Grand Total	5	
Name					
Address					
City			State	Zip	

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☐ Please charge my tickets to: ☐ VISA ☐ MasterCard (add \$1 handling fee per ticket for credit card orders)
Card Number Exp. Date
Signature

4

Tempel Nature Lecture: Wildlife and Wild Places

Simple Soaps*
Pamper Yourself: Part II*
1998 Tempel Nature Lecture:
Cranes to Columbines: A Journey
through Colorado's Natural Year*

5

6

Free day & drop-in tour Chatfield Arboretum

7

SCFD 10th Anniversary Celebration
10 a.m. Turkey Talk by Peak
to Prairie Wildlife Care
10 a.m. - Rky. Mtn. Storytellers
Noon - Denver Opera Company
performing Mozart
1 p.m. - Harmony: A Colorado
Chorale

3:30 p.m. - Colorado Opera Troupe Gloxinia Gesneriad Growers mtg.

11

Record the Harvest with Colored Pencils* Gourmet Herbed Oils and Vinegars* 12

Record the Harvest with Colored Pencils II*

13

T 3

Holiday Gift

--Gar∂en Market (v)

Rocky Mountain Judging center

18

Herb Society meeting

19

Tropical Escapade'

Conservatory reopening gala
Herbal Pantry Gifts*
African Violet society meeting

20

Conservatory Opening members' preview party



21

Conservatory Opening festivities for the public

Rocky Mountain African Violet Council meeting High Country Judges workshop

25

26

Denver Botanic Gardens Closed for Thanksgiving

27

28











Madeira and Portugal

Madeira, an exotic island located off the coast of Portugal, is a gardeners' paradise. The unique climate provides the landscape and gardens with spectacular floral displays. And, this April 13 through 27 trip is planned during the annual "Flower Festival"! Mountain hikes, coastal walks, and village tours will allow us to fully enjoy this beautiful paradise. Exploring the sites of central and northern Portugal, our tour meanders through Lisbon, Setubal, Estremoz, Coimbra, Nazare, Sintra, Obidos, Monserrate and the Bucaco Forest. Discover the richness of the Portuguese culture with visits to museums, monasteries, palaces and gardens. (An optional 7-day extension to Spain will be offered.)

The price of this 15-day tour is \$4595 per person from Denver and includes all airfare, lodging, ground transportation, most meals, activities, entry fees and guiding services. A \$500 deposit is required by November 13. Please call 303-370-8051 for more information or reservations.



Members usher in the holiday Season

"Herald the Season" will be held on December 2 and 3 from 6:30 to 8:30 p.m. This annual fun-filled kick-off to the holiday festivities at DBG is just for members and their guests. You will be able to preview the thousands of outdoor lights throughout the Gardens and enjoy beautiful indoor decorations. There will also be activities for children, story telling, holiday music and gournet foods. Admission is \$6 per person. Children 2 and younger are free. For reservations, call 303-370-8187 beginning November 9.

Shopping made quick and easy

Give a DBG membership as a holiday gift and the recipient (new members only) will receive a \$5 Gift Shop certificate! General benefits for all members include free admission to the York Street and Chatfield facilities, the monthly newsletter and biannual Mountain, Plain and Garden magazine, discounts on classes, at the Gift Shop and Plant and Book Sale, free admission to select events and merchant discounts at Smith & Hawken, Tagawa, Birdsall and Logan Street Garden Centers.

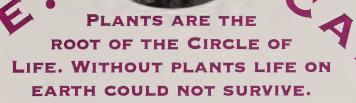
Membership prices and levels include: The Landscaper (\$40) — Admits members and one guest each visit.

The Arbor Circle (\$55) — Two member cards (each admits three) and summer concert discounts.

The Botanist Club (\$120) — Two member cards (each admits two), plus two free summer concert tickets and additional merchant discounts.

The Gardener (\$30) — Admits one (seniors, age 65 or above may ask for one extra guest pass each visit).

Please call 303-370-8029 for more information or to order with a VISA or MasterCard. New members will receive a gift card informing them of your thoughtfulness.



Your donation to Denver Botanic Gardens' Annual Fund is vital to maintaining the Circle of Life.

All ages must understand the importance of life-sustaining plants, and DBG offers educational and research programs that rank among the best in the nation. Membership dues and restricted gifts simply cannot cover expenses needed to ensure that DBG's quality programs continue to reach people of all ages. Please give to the Gardens today and help DBG persevere in its mission to bring knowledge and understanding of the importance of life-sustaining plants to future generations.



TOGETHER, WE CAN CONNECT THE CIRCLE OF LIFE



TYES, I WANT TO HELP CONNECT THE CIRCLE OF	F LIFE!	
Please consider a gift of \$50, \$100, or \$200 — whatever is c	comfortable for you! Comple	te this form and mail it today.
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City	State	Zip
Phone(H)	Phone(W)	
Fax #	E-mail	
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Credit Card #		Exp. date
Signature		
For information on the Annual Fund, call 303-370-8185.	Check here to receive infor	mation on DBG's Planned Giving Program.
Thank you for your thoughtful and tax-deductible gift. Ple	ease return to DBG Annual 1	Fund, 909 York Street, Denver, CO 80206.



Fragrant champaca to enhance Conservatory

Over the years tropical explorers have brought many beautiful plants back to temperate climates for our enjoyment. The most common experience we have with such plants is as house plants. For a less common experience, we explore a conservatory where many exotic and beautiful species can be found.

Michelia champaca (champaca) is one such species, which will be found in DBG's Conservatory. This subtropical plant is widely revered as a medicinal, religious, timber-bearing and cosmetic plant in the true tropics. It originates in the Himalayas, up to 3,000 feet, but it is extensively grown as an ornamental plant in tropical India, Malaysia, Indonesia and the Philippines.

The tree, which grows 80 to 100 feet high, has beautiful glossy leaves like a magnolia. It is in the magnolia family and its flowers resemble the 'Waterlily' magnolia, but the champaca features intensely fragrant, yellow petals. During a Hindu religious ceremony called a puja, these flowers are often used as an offering. In fact, many temples in India have a champaca tree on their grounds, providing a ready source for the offerings. The flowers are also used as hair adornments and in necklaces throughout southeast Asia. They are readily available in tropical flower markets.

The roots, root bark, tree bark, flowers and oil made from the flowers and fruits all have medicinal uses in India. Timber is produced by girdling the tree and letting it stand for three years. Then, the beautiful yellow-brown wood can be used for cabinetry, boat-building and veneer.

As the Conservatory matures, let's hope the fragrance of champaca marks our progress through the years. It is hard to predict what time of year this subtropical tree will bloom in a tropical conservatory located in a temperate climate, but when it does bloom, its intense fragrance will definitely make its presence known.

Accolades for Mushrooms of Colorado

Vera Stukey Evenson has been honored with two Gold Awards from the Colorado Independent Publishers
Association for her book *Mushrooms of Colorado*. Published by Westcliffe
Publishing, the book was recognized for excellence in the categories of "Reference Books" and "Overall Book Design."
Evenson is Associate Curator of DBG's Mycology department and her awardwinning book is available in many regional book stores and at the Gardens Gift Shop for \$25.



Sources from the Helen Fowler Library used for this article:

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Community Gardens harvest success

The Community Gardens, ended a terrific season on Sunday, November 1. In the Waring Garden, a new asparagus bed took root, and consistent care to a previously neglected raspberry patch yielded mounds of fruit. The Gaylord Garden was the scene of a miraculous turn-around of the old rock alpine test plots. Several hearty gardeners grew wonderful vegetable gardens in what used to be gravel.

In the Morrison Garden, home of Mr. McGregor's Garden, the new children's garden, hundreds of children were able to pick and plant vegetables, herbs and flowers throughout the season.

The 1999 Community Garden season will start up in early April. If you, or someone you know, would like to get involved with DBG's Community Gardens, please call Selina Rossiter at 303-370-8042.

Chatfield Arboretum "homestead" camp

In the summer of 1999, Chatfield Arboretum will start offering a new day camp program to students in the community who are interested in learning what life was like when Colorado was being settled. The day camp will combine lessons in history, ecology and sustainable agriculture. Chatfield Arboretum will utilize several historic buildings, including the Hildebrand homestead (est. 1860) and the Deer Creek Schoolhouse (est. 1874), to take students back to the turn-of-the-century where they will take on the role of children living in eastern Colorado during this time period.

Students will leave modern conveniences behind when they arrive each day to tend to their chores. Staff members will help students prepare meals with vegetables collected from the Heirloom Vegetable Garden, care for small farm animals and learn about early American farming techniques. Participants will also attend classes at Deer Creek Schoolhouse where they will learn from lessons in science and history, as well as play historic games in the school yard. One overnight stay will help students to get a better idea



The historic Deer Creek Schoolhouse at Chatfield Arboretum.

of what life is like living on a farm.

After months of hard work by many individuals throughout Denver Botanic Gardens, Chatfield Arboretum was awarded a \$45,000 grant from the Berger Foundation. The board of the Berger Foundation was looking for agencies that can provide a lasting educational experience for local students. Chatfield Arboretum not only offers the size, but also the unique facilities the Berger

Foundation was looking for. This grant will be used for curriculum design, supplies, and staff for the program.

Additional funds are being sought to further restore and furnish the historic buildings. The staff at Chatfield Arboretum is excited as they prepare for the new program and eagerly await the arrival of the first students next summer.

Theme tours cure botany boredom

Botany boring? No way! Trees are cool. Thanks to a great group of volunteer guides, elementary students have learned just how cool trees are by participating in the Gardens' Deciduous Forest Theme Tours. Before students arrived at DBG they had already participated in pre-visit activities provided by the Gardens. Then, from the moment they arrived, the kids were in action.

A theme tour is no walk in the park. It's a close-up look at 10 different trees outside and creepy crawly tree enemies inside (under microscopes!). It's tasting tree sap, feeling tree bark and running chromatography experiments. (The students not only learned what the word means, they performed the experiments!) After a theme tour, one fifth grader even gave her guide the ultimate compliment (for a fifth grader) — "I thought that was going to be bo-o-o-r-ing," she proclaimed, then added with a look of gleeful surprise, "It wasn't!"

Deciduous Forest Theme Tours are available for school groups in grades 3-7. For information about DBG's school programs, please call 303-331-5777.



Students enjoy a DBG theme tour.

Denver Botanic Gardens 909 York Street Denver, Colorado 80206-3799

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DON'T MISS...

An extraordinary collection of botanical illustrations from the 17th, 18th and 19th centuries are available in the Gift Shop and will also be sold at the Holiday Gift and Garden Market on November 13 and 14. These botanical prints could be the perfect gift for that someone special.



Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206

Editor: Julie Behrens Designer: Julie Rudofsky

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303-370-8032 Dr. Green plant information 303-370-8068

Tues. and Thurs., 1 to 3 p.m.

Planttalk (24-hour) 1-888-666-3063

recorded plant information

Gift Shop 303-331-4009 Helen Fowler Library 303-370-8014

Sun. through Sat., 9 a.m. to 5 p.m.

Mon. through Fri., 8 a.m. to 5 p.m.

Class registration 303-370-8020 Facility rental 303-370-8012 Green Thumb News 303-370-8033 Guided tours 303-370-8019 Job Hotline 303-370-8000 Membership services 303-370-8029 Security, emergencies 303-370-8017 Special events information 303-370-8187 Development 303-370-8055 Volunteering 303-370-8049

303-973-3705

Chatfield Arboretum Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Conservatory Illustration by Greg Michaels.

Green Thumb News

December 1998





From the Top

News from the Executive Director



Lady Bird Johnson is the 1998 recipient of the prestigious Denver Botanic Gardens Medal.

On Thursday, November 19, Denver Botanic Gardens presented the third annual Denver Botanic Gardens Awards to honor outstanding individuals and organizations for their contributions to horticulture and the environment. Lady Bird Johnson was presented Denver Botanic Gardens' prestigious Medal which honors people and institutions for their work in preserving the natural environment.

Mrs. Johnson, now in her 85th year, has enjoyed a lifelong love affair with native plants. As former First Lady of the United States, her enthusiasm and sustained efforts to preserve and promote the beauty of native plants throughout the country has been, and is, widely influential. Her Wildflower Center on 60-acres of Texas hill country near Austin, Texas is dedicated to the conservation, propagation and increased use of wildflowers and native plants. Denver Botanic Gardens was quite honored to commend her in person for her lifelong conservation and environmental efforts.

Colorado-based gardening experts, Rob Proctor and Lauren Springer, who are perhaps best known for their exceptional writing and garden design talents, received the Distinguished Achievement in Horticulture Award. Proctor and Springer are both accomplished writers and were the designers of the O'Fallon Perennial Walk in the Romantic Gardens at Denver Botanic Gardens.

This year's Distinguished Achievement in Education Award was presented to High Country News, a nonprofit organization that produces a biweekly newspaper covering issues relating to public lands and wildlife. The "paper for people who care about the West," is geared towards educators who use the paper to aid in their teachings of issues from endangered plants and animals to logging of public lands.

The creation of the Bernice "Pete" Peterson Award was also announced in honor of this long-time volunteer of Denver Botanic Gardens. In the future, this award will be given from time to time by the Gardens' Trustees for exceptional, long-term service to Denver Botanic Gardens by a volunteer or volunteers.

John B. Proffitt, Interim Executive Director





Beyond the white blanket

Many may think that once winter has covered Chatfield Arboretum under a shimmering white blanket of snow, there is nothing left to see. Well, this is simply not the case. Imagine that you are walking through a crisp layer of new snow and you come upon a set of tracks you recognize as those of a lone coyote. Your curiosity is piqued as the tracks lead you around the wetland ponds where you see hundreds of goose prints covering the banks. You quickly deduce that a coyote must have been hunting for dinner. A bald eagle is soaring overhead looking for a snack of his own. He has chosen a good hunting spot, because the ponds in front of you are covered with different species of migratory waterfowl. Winter can be the perfect time to view wildlife that is usually hidden behind the foliage of the other seasons.

Sue Boersma, Naturalist



Genevieve Gonzales, General Accountant, is our November Employee of the Month because of her team spirit and commitment to the Gardens. Genevieve makes a point of being well integrated into all aspects of the Gardens and continually strives to improve operations and make DBG a better place to work. Her sense of humor is also much appreciated and she is always willing to help out on a project or committee.

Cover Story: Walking in a winter wonderland

This year's Blossoms of Light will be Denver Botanic Gardens' most spectacular holiday display ever. Greatly expanded light sculptures will decorate the new Romantic Gardens, the West Pond and the southwest pergola walkway, thanks to the generous sponsorship of New Century Energies Foundation and the Scientific and Cultural Facilities District. Strobe light units have been added on the grounds to create special effects in the pine trees. The Water Garden gazebo will serve as a warming hut where guests can enjoy a cup of hot chocolate or coffee. The Gift Shop will be open each night with a wonderful selection of gifts, cards, books and ornaments.

Tropical Botanica, the exotic, tropical forest exhibit in Boettcher Memorial Conservatory will be lit with 10 miles of glowing fiber optics. These dramatic light sculptures are hand created by the DBG horticulture staff and there is nothing like it anywhere else in Denver. Marnie's Pavilion features a rotating display of lighted topiaries.

Admission for members is \$3 for adults and \$1 for seniors (65+) and youth (15 and younger); for nonmembers admission is \$5 for adults and \$3 for seniors and youth. Gates are open nightly from 6 to 9 p.m., December 5 through January 3.



Youngsters can bring their favorite Teddy bear and adult and enjoy a British high tea and fun entertainment at the 11th annual Teddy Bear Teas held on December 5, 6, 12 and 13. Teas are held at 11 a.m. and 1 p.m. (A 3p.m. tea is also offered on December 12.) Tickets are \$10 for children and \$15 for adults. For reservations, please call 303-370-8187.

Special senior night

A special free night for seniors, presented by Secure Horizons and supported by Centura Health, will be held on Tuesday, December 8 from 6 to 9 p.m. Seniors aged 65 and up will receive free admission to the Blossoms of Light nightly festivities featuring Dickens Carolers and hand bell and hammered dulcimer musical groups. The first 5,000 guests will enjoy complimentary refreshments.



This coupon admits two adults and two children to any evening of Blossoms of Light, December 5 through January 3, 6 to 9 p.m. nightly.

Present coupon to cashier with current membership card for free admission.

Members may purchase additional tickets at a discounted member price of \$3 for adults and \$1 for seniors and youth.

The high life

One of the fascinating features of tropical habitats is their overwhelming diversity of plants. Their dense growth creates a living tapestry, from the forest floor to the understory of shrubs and trees, into the high canopy to the emergents that soar up to two hundred feet toward the tropical sky. As these forests evolved, the forces of nature constantly challenged plants and animals to adapt in order to survive. While the forest floor became more crowded and shaded, certain types of plants adapted to life in the trees, where air and light provided better conditions for survival.

Epiphytes are commonly referred to as "air plants" and their ability to thrive above the ground and out of the soil has made them very successful inhabitants of the tropical community. The trunks and branches of trees are often draped in a wide array of epiphytic plants. Many orchids grow epiphytically, as do many types of bromeliads and ferns. Some aroids, members of the philodendron family, climb from the ground and become epiphytic as they mature. Other vines follow suit and adapt to a life in the trees. While they are firmly attached to their host plant, it is important to note that they are not parasitic.

How they adapt and maintain this lifestyle is testament to the resourceful nature of plants. Epiphytes have root systems and leaves that absorb and retain airborne moisture and nutrients from mist, rain and dust. Bromeliads have developed tiny scales that capture moisture from the air and many are able to



A hanging garden of epiphytes includes an orchid (Cattleya sp.), Spanish moss (Tillandsia usneoides) and Tillandsia sp.

collect and store water within the structure of their leaves. Both orchids and bromeliads have adapted to conserve moisture by developing thick leaves that reduce the loss of water.

When visiting the Conservatory, observe the numerous plants growing epiphytically, on the large banyan tree, on the rock walls and in the trees. These fascinating plants are an excellent illustration of the intricate balance of nature. You may also have noticed that a new name, Tropical Botanica, has been selected for the exhibit. This name was chosen to reflect the exotic environment and its wide diversity of tropical plants.



Beccariophoenix madagascariensis by Jayme Irvin.

Plant Portrait

Beccariophoenix madagascariensis

A native of Madagascar, *Beccariophoenix madagascariensis*, is called the window palm because it appears to have windows in the fused leaf blades. Until 1980, *Beccariophoenix* was virtually unknown and assumed to be extinct. When a few plants were discovered, enthusiasts began obtaining large quantities of seed. Now, seedlings of this beautiful and quite special palm are being grown around the world.

This plant's many uses include the manufacture of hats, construction materials and the use of the palm heart for food. The conservation status is critical for this wonderful plant. Recent estimates state there are as few as 60 plants left in its natural habitat.

Window palm grows to approximately 50 feet. The flower structure is very attractive and appears like a torpedo emerging from the top of the plant. The individual flowers are pale cream to peach colored, and there are several dozen per inflorescence. As we searched for plants for Tropical Botanica, we encountered this exquisite palm and secured it for planting within the Conservatory.

Gary Davis, Greenhouse Supervisor

Impressions of the past

When creating a reproduction of any artifact, be it an object left by a human or a fossil of a plant, some research is required to reconstruct the actual item. With plant fossils, it helps to pick out a present-day relative that can be altered, if necessary, to look like the extinct species. Fortunately, palm leaves have not changed much in the last seventy million years or so, and paleobotanists consider them a good indicator for tropical climates.

The palm provided an excellent choice for the fossil reproduction in the Conservatory and Denver Botanic Gardens has a wonderful collection of palms to choose from. For the fossil reproduction displayed in Tropical Botanica, we made the plaster mold from three leaves selected from *Sabal blackburniana* (palmetto).

It was not necessary to sacrifice an entire plant for the mold-making process as a few leaves were plenty.

An eight-foot-by-two-foot bed of plastiline clay, one-half inch thick, was prepared to look like a rock surface before the leaves were laid into the clay. Once the leaves were properly attached to the clay, three-inch clay walls were built up around the slab and moulding plaster was poured on the fossil slab and allowed to set. This created a negative fossil form, from which a positive rubber fossil slab was made, in the same way the plaster was poured. The rubber fossil slab, when set, was then removed from the plaster mold and pressed into concrete that was nearly set, to produce the actual fossil reproduction.

Jayme Irvin, Exhibit Specialist



The fossil reproduction of palmetto (Sabal blackburniana) is displayed in Tropical Botanica.



Answers from Dr. Green

Here is a sample of the questions received on DBG's plant information help line.



Poinsettias (Euphorbia pulcherrima), available in a variety of colors and forms, have become traditional holiday symbols.

Q. Is the poinsettia poisonous?

A. No. Although often included on lists of poisonous plants, recent studies indicate that greenhouse poinsettia varieties have very small or nonexistent amounts of the active chemical that is found in many other species of the genus *Euphorbia*. Nevertheless, there is no good reason to eat one, and all children should be taught at an early age never to ingest plants or plant parts that are not given to them by a trusted adult.

Q. How long can I keep a Christmas tree indoors?

A. A fresh tree that receives good care may remain in safe condition for 10 days to two weeks. When you bring your tree home, make a new cut about an inch above the old one and keep it standing in water. Check the water level frequently and place the tree in a cool location away from sun, heat vents or radiators, televisions and other sources of heat.

"Dr. Green" will answer your gardening and plant questions on Tuesdays and Thursdays between 1 and 3 p.m., or leave a message at 303-370-8068 for a return call.

Herald the Season, December 2 & 3

DBG's members-only family holiday party will offer childrens' crafts, storytelling, balloon sculpting, musical entertainment, holiday desserts and refreshments from 6:30 to 8:30 p.m. on both nights. Tickets are \$6, and free to children five and younger. Please call 303-370-8187 for reservations.

Tree-mendous Kickoff, December 5

Enjoy a day of old-fashioned fun in the country as you search for the very best Christmas tree and wreath at the Tree-mendous Kickoff to Blossoms of Light. Freshly-cut noble fir and Douglas fir trees are priced by size. There will also be children's craft activities, refreshments and a visit from Santa. The holiday marketplace will also offer handmade beeswax candles, ornaments and Chatfield honey. The tree and wreath sale will be held at Chatfield Arboretum from 10 a.m. to 4 p.m. Admission is free. Please call 303-973-3705 for more information.

Blossoms of Light nightly entertainment

Free nightly entertainment from 6:30 to 8:30 p.m. included with admission fee. See calendar listing for specific performances.

Concerts, December 9, 10, 15 & 16

This year's holiday concert series is offered in collaboration with the Swallow Hill Music Association. The lineup includes the exquisite vocals of Mollie O'Brien & the E-Tones on Wednesday, December 9; Celtic music from Ireland and Scotland performed by Colcannon on Thursday, December 10; and, Chris Daniels and the Kings O' Swing orchestra on Tuesday and Wednesday, December 15 and 16. The gates open at 6 p.m. so you can enjoy the sensational Blossoms of Light display in the outdoor gardens before the music begins at 7 p.m. in Mitchell Hall. Member tickets are \$12 and nonmember tickets are \$14. Seating is limited. Call early for reservations, 303-370-8187.

Special senior night, December 8

A special free night for seniors, presented by Secure Horizons and supported by Centura Health, will be held from 6 to 9 p.m. Seniors aged 65 and up receive free admission to Blossoms of Light festivities. The first 5,000 guests will also enjoy complimentary refreshments. For information, call 303-370-8187.

7

Blossoms of Light celebration
Miguel Espinoza — Flamenco Guitar
Teddy Bear Tea (V)

7

Blossoms of Light celebration West High School and George Washington High School Choirs 8

1

Blossoms of Light celebra Dickens Carolers Blossoms of Light Seniors Native Plant Society mee

The Art of Choosing Drawing

for Botanical Illustration*



13

Blossoms of Light celebration
Namaste — Contemporary Folk Group
Teddy Bear Tea (V)

14

Blossoms of Light celebration Chaparral, Colorado Academy, Hinkley & JFK High School Choirs 15

Blossoms of Light celebra Shawn Flink — Guitar Chris Daniels & the Kings Holiday concert



20

27

Blossoms of Light celebration
Buds & Stems Musical Bouquet
Lookout Mountain Chamber
Ensemble — Violin

21

Blossoms of Light celebration
Pat Mendoza — Guitar, Song Writer

22

Blossoms of Light celebra Perpetual Motion — Jazz E

KEY FOR CALENDAR

Bold green type = Gardens events
(V) = Volunteers are needed.
Call Dorothy Pate, 303.429.8602.

Bold black type = Plant Society eventsRegular black type = Classes
(CH) = Classes at Chatfield Arboretum

FOR MORE INFORMATION:

Gardens events 303.370.8187 Plant Society events 303.370.8097

Classes 303.370.8020

* Preregistration is required for all classes.

Blossoms of Light celebration *Ron Ivery* — *R&B Singer, Guitar*

28

Blossoms of Light celebration
Shawn Flink — Guitar

29

Blossoms of Light celebra Louis Colaiannia — Pianis



Five Things to Remember as Year-End Draws Near

The end of the year will soon be upon us and before we know it, the new year will dawn. To help you finish up your year in charitable style, here are five tips.



CHARITABLE GIVING BENEFITS YOU, AS WELL AS DENVER BOTANIC GARDENS.

A special year-end gift during this "Season of Giving" can bring you added pleasure, especially as you consider the boost your gift will give us here at the Gardens. You can enjoy knowing that your generosity makes a difference in helping the Gardens fulfill its goals. And of course, you benefit from any tax advantages related to your charitable giving.



APPRECIATED ASSETS MAKE EXCELLENT GIFTS.

fair-market value for your gift, including all the appreciation. What's more, neither you nor Denver Botanic Gardens will have to pay capital gains tax on the gift. The more the stock has appreciated, the greater the benefit. Your tax advisor can spell out the specifics for you. Take stock for example. If you have owned stock for more than a year, you receive the full, Mutual funds, real estate and other appreciated assets make great gifts as well.



TAX-WISE CHARITABLE GIFTS OFTEN REQUIRE ADVANCED ACTION.

time to discuss your non-cash gift with your attorney or financial advisor. Getting appoint-Real estate gifts require even more time — often several weeks. You should also plan for A stock gift usually takes more time to complete than writing out and mailing a check. ments and handling the paperwork takes time. So...start early.



CHARITABLE GIFTS CAN BE ACCELERATED.

That is, you can reach into next year and pull your charitable giving into the current year. There are several reasons why this might make sense. iliculle. Addicional giving tins year may cleate a inglier chaireadie income cax deduction and help ease your added tax burden.

- As you move closer to the end of the year, you may have extra cash on hand and want to make an "advance" on your charitable giving plans for the new year.
- 3. You may want to give more this year simply because you are sure of the tax benefits now, but unsure what Congress may do next year. After all, who knows what a year



A LIFE-INCOME PLAN MAY MAKE SENSE FOR YOU AT THIS TIME.

There are several ways to give to Denver Botanic Gardens which allow you to obtain current Gardens. If you prefer not to give up current income from retirement-related or other assets, tax benefits, create a stream of lifetime income and provide a future gift to Denver Botanic a life income gift may be an excellent way to benefit you, your family and Denver Botanic Gardens at the same time.





















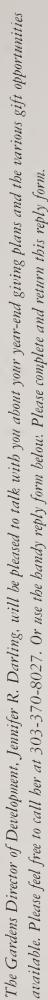












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☐ Please soils the information about making a year-end planned gift to Denver Botanic Gardens. ☐ Please contact me about a personal visit. The best time to call me is: ☐ I have provided for Denver Botanic Gardens in my will or other estate-planning document. me
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Address

Phone State

Birthdate(s)

Mail this form to: Denver Botanic Gardens, 909 York Street, Denver, CO 80206







New member plants

New members may choose a plant from our selection of "New Member Plants" at the Information Desk (only one per membership, please). New members may also choose from a small selection of magnetic picture frames and card/key cases as well.



1999 tours

Discover the world by joining other Gardens' members on trips to Belize, Madeira/Portugal, Santa Fe, Breckenridge, Alaska, Rocky Mountain National Park and Southern California. Check your travel brochure for the exciting details (inserted in the October *Green Thumb News*) or call Pam Rathke, DBG Travel Coordinator, at 303-370-8051.

'98 tax deductions for memberships

The amount you can deduct from your income tax depends on your membership and the amount you paid for it. For Gardener, Landscaper and Arbor Circle, all but \$8 of what you paid is tax deductible; Botanist Club, all but \$40; Conservators' Society all but \$72; and, for Perennial Partner, all but \$144.



Herald the Season

Be the first to preview the spectacular Blossoms of Light display by attending Herald the Season, DBG's members-only family party on Wednesday and Thursday, December 2 and 3 from 6:30 to 8:30 p.m. There will be childrens' crafts, story-telling, balloon sculpting, desserts and refreshments. Entertainment will be provided by the Last Note a capella singers and the instrumental folk music of Balance and Swing featuring the fiddle, keyboard and hammered dulcimer. Tickets are \$6 a person, but free to children five and younger. Please call 303-370-8187 for reservations.



Give a gift that lasts throughout the year

Give the gift of a DBG Membership! All new membership gifts will include a bonus \$5 Gift Shop certificate and a copy of "Window on the Tropics" magazine which commemorates the opening of Tropical Botanica in Boettcher Memorial Conservatory. New members will get a card informing them of your gift.

General benefits of membership include free admission to the York Street and Chatfield facilities; class catalogs and monthly newsletters; discounts on classes, Gift Shop and Plant & Book Sale merchandise; free admission to events and special invitations; and merchant discounts at Smith & Hawken, Tagawa, Birdsall and Logan Street garden centers.

Membership levels include:

The Gardener (\$30) — Admits one. **The Landscaper** (\$40) — Admits the member and one guest each visit.

The Arbor Circle (\$55) — Two member cards, each admits three and summer concert discounts.

The Botanist Club (\$120) — Two member cards, each admits four, plus two free summer concert tickets and additional merchant discounts.

Seniors (age 65 or above), may ask for a free guest pass when they enter the Gardens.

Please call 303-370-8029 for more information or to order a membership with VISA or MasterCard.

Memorials and Tributes

In memory of Dulcy Lynn Klatt

Madlyn Blitch Beverly Phillips Susan Hanner Jill Richard

In memory of David Dunklee

Mr. and Mrs. Walter A. Steele

In memory of Mrs. Lynn Sheridan

Mr. and Mrs. Walter A. Steele

In memory of Richard M. Moore

Mr. and Mrs. Walter A. Steele

In memory of Minnie Hover Vesper

Dianne Sauder Jacobsen

In memory of Stella Hover Rockman

Dianne Sauder Jacobsen

In honor of Mary Hodge

Senior Ladies of the Colorado Ave. Bible Church

In memory of Bernice Petersen

Dr. and Mrs. James G. Nelson

In honor of Dr. Gertrude S. Hausmann

Sandy Butler and Family

In memory of Donna Turnball

Sharon Reed

In memory of Jean Blount

Marjorie P. Stewart Mary Eiseman

In memory of Anne Maitland Claycomb Fred T. Baggs

In memory of Mrs. Laura Ferslov-Jensen

Mr. and Mrs. Ib Falk Jorgensen

In memory of Henry J. Novotny

Aurora Society of Photographers

Mr. and Mrs. Robert Lewis

Mr. and Mrs. Emilio Velazquez and Family

The Malacek Family

Don, Marie, and Tom Shields

Mr. and Mrs. Elmer W. Paetow

Mrs. Eve Esterbrook

Lt. Col. Edward Hunt and Family

Mr. and Mrs. Jerry L. Griffeth

Mr. and Mrs. Eugene M. Baker, III

Mr. and Mrs. Walter H. Kollner

Ms. Ethel A. Hanger

Mr. and Mrs. Harold G. Osborn

In memory of Cecelia Kowal Roglieri

Jane Oliverio

David Wortman

Rita Chris

In memory of Laurita Hess

Alan Hess

In memory of Richard Kiser's Mother

Geneva Pharmaceuticals

In memory of Arnold Cowperthwaite

Mr. and Mrs. Ib Falk Jorgensen

In memory of Jean T. Barnard Patty and Rollin Barnard

In memory of Marie Schriner

Mr. and Mrs. David J. Linn

Darlene Schriner

In memory of Scott Steinhauer

Mr. and Mrs. Harlan H. Holben

In honor of Hal and Ann Logan

Mr. and Mrs. Donald Anderson

In memory of C. R. McCotter Mr. and Mrs. Walter A. Steele

LIFE. WITHOUT PLANTS, LIFE ON

EARTH COULD NOT SURVIVE.

Your donation to Denver Botanic Gardens' Annual Fund is vital to maintaining the Circle of Life.

All ages must understand the importance of life-sustaining plants, and DBG offers educational and research programs that rank among the best in the nation. Membership dues and restricted gifts simply cannot cover expenses needed to ensure that DBG's quality programs continue to reach people of all ages. Please give to the Gardens today and help DBG persevere in its mission to bring knowledge and understanding of the importance of life-sustaining plants to future generations.

> TOGETHER, WE CAN CONNECT LOBHE THE CIRCLE OF LIFE

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YES.		WANT	TO	HELP	CONNECT	THE	CIRCLE	OF LI	FE!

Please consider a gift of \$50, \$100, or \$200 or whatever is comfortable for you! Complete this form and mail it today.

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For information on the Annual Fund, call 303-370-8185.

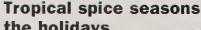
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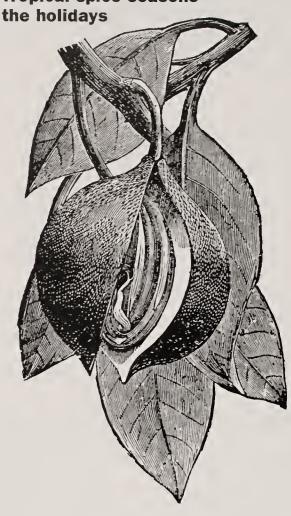
DBG Annual Fund, 909 York Street, Denver, CO 80206.



The Garden Plot

From the Helen Fowler Library





How did a tropical spice get into our holiday pumpkin pies and eggnog?

Nutmeg (Myristica fragrans) comes from the Molucca Islands. It grows in hot and humid, protected valleys up to about 500 feet above sea level. At 90 feet tall, it is a medium-sized tropical tree with large evergreen leaves. Unlike cinnamon and rosemary, nutmeg has not been known in the western world from Biblical times. When the explorer Magellan finally found the source of nutmeg, he renamed the Moluccas the Spice Islands. During earlier times when there was no refrigeration, spices were used in very large quantities in things like stews and meat dishes that we would never imagine putting nutmeg in today. Nutmeg not only went in the dish when it was cooking, but individuals also carried nutineg graters with them to add it directly to the dish at the table.

The Spice Islands were then held by the Portuguese, and nutmeg was theirs to monopolize. They were able to maintain this monopoly by falsifying shipping routes and maps. Eventually, the Dutch gained control and the monopoly grew even fiercer. The penalty for smuggling live trees or nuts from the Islands was death. Finally, a Frenchman succeeded in getting some trees out of the Spice Islands. It was thought that the tree could be grown throughout the tropics, but nutmeg is a finicky grower which needs very exacting conditions. Currently, Grenada is the only other place besides the Spice Islands where nutmeg is grown commercially.

The fruit of the nutmeg tree is fleshy. When ripe, the fruit splits and falls to the ground, where it is harvested. The fleshy part and the mace is taken off the seed. The seed or nut is dried and cracked, revealing the kernel, which is the nutmeg.

Nutmeg has journeyed a long way to spice up the holiday season. Grate away!

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Gift certificates for Colorado gardeners

Gardening in Colorado is challenging as well as rewarding, which is why gift certificates for DBG gardening classes are such welcomed gifts at holiday time. Classes offered by the Gardens are designed especially for this region and are taught by local experts: Botanic Gardens staff, green industry professionals and regional experts in horticulture. DBG instructors emphasize the importance of the right plants for the right spot and explain how to adapt techniques from other areas of the country or even the state to Front Range gardening.

Please call 303-370-8020 or 303-370-8019 to purchase gift certificates for any of DBG's classes.

Horticulture Magazine

returns to Denver Botanic Gardens with its national symposium, "Command Performance," on Tuesday, February 2. On the following day, the Gardens will offer a complementary workshop, "Rocky Mountain Drama." Mark your calendar now and look for more details in the January issue.

Extraordinary volunteer shares culture

Japan's cultural legacy has enriched Denver Botanic Gardens for nearly twenty years. Playing a major role in opening that door for understanding is DBG volunteer Kathryn Kawakami, who helps both children and adults enjoy the subtle beauty of the Japanese tea ceremony as it is presented at the Garden's Japanese Tea House. Mrs. Kawakami was honored for her dedicated volunteer service at a reception in July 1998. The Gardens' former Executive Director Rick Daley, and Paula Ogilvie, Adult Education Specialist, presented Mrs. Kawakami with a certificate of appreciation and several gifts of thanks.

Following the dedication of the Japanese Garden at Denver Botanic Gardens in 1979 and the completion of the Japanese Tea House, Mrs. Kawakami took an active role in sharing the harmony, respect, purity, tranquillity and elegant simplicity inherent in the traditional Japanese tea ceremony. She studied at the School of Ura-Senke in Japan and in the United States and continues to lend her considerable expertise to this ceremony as it is offered in the quiet beauty of Shofu-En, Garden of Pine Wind.

Kathryn Kawakami has received numerous awards for her volunteer services. She has recently been acknowledged by the Colorado Council of the Arts. Additionally, the Japanese community has given her the Kansha-No-Hi Award for her dedication within the community, recognizing her tireless efforts in the arts of the tea ceremony, origami and the koto. Kathryn Kawakami has welcomed countless visitors over the years and has promoted a greater understanding of cultural ideals.



Denver Botanic Gardens is pleased to acknowledge Kathryn Kawakami's forty years of active volunteer service, including twenty years of teaching about the Japanese culture.

Summer internships in applied horticulture

Students studying horticulture or botany are invited to apply for the 1999 Summer Internship Program in applied horticulture. This 10-week internship, from June 7 to August 13, offers students the opportunity to work alongside the Gardens' professional gardening staff, learning the daily operations of a public display garden. Field trips, special projects and lectures help to round out the program that highlights Front Range horticulture.

Work experience includes planting, watering, pruning and weeding on the outside grounds; seeding, transplanting and propagation in the greenhouses; assisting with the tropical and subtropical

plant displays; and attending a weekly lecture and field trip.

All applicants must be currently enrolled in college programs (including graduate programs) and preference will be given to residents of/or students in the states of Colorado, Montana, New Mexico, Utah and Wyoming. The program welcomes both traditional as well as nontraditional students, including those who are making career changes into the field of horticulture.

To qualify for the 1999 Summer Internship Program in Applied Horticulture, applicants must have completed their sophomore year of college with a grade point average of at least 2.5 on a scale of 4.0. Completion of several introductory courses in botany and horticulture are prerequisites.

Applicants are sought for the two Alice Mann Owen Internships in Applied Horticulture, the two Beatrice B. Taplin Internships in Applied Horticulture, the Clara Van Schaack Phipps Internship in Applied Horticulture and the Donald L. McIntosh Internship. Inquiries and requests for application materials should be directed to Paula Ogilvie, Adult Education Specialist at DBG, who can be e-mailed at ogilviep@botanicgardens.org. All completed application materials are due February 21, 1999. To learn more about this program, visit the DBG web site at http://www.botanicgardens.org.

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Green Thumb News

Published monthly by Denver Botanic Gardens 909 York St., Denver, CO 80206

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Every day, 9 a.m. to 5 p.m.

Denver Botanic Gardens and Chatfield Arboretum are established and maintained by Denver Botanic Gardens, Inc., for the people of the City and County of Denver and for the general public in cooperation with the Denver Parks and Recreation Department. Denver Botanic Gardens is also grateful for funds from the Scientific & Cultural Facilities District (SCFD), which enable the Gardens to expand services and enhance the quality of programs and exhibits.

On the cover: Blossoms of Light photo by Jim Havey.